

FUN WITH GARDENING



by Francis Rackemann
Garden Editor

THE EVENING SUN



NOT FOR RESALE

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Introduction

This booklet is designed to help homeowners in the Baltimore area in selecting the best trees, shrubs and flowers to add charm, beauty and interest to their property.

There are trees, shrubs and flowers available in Maryland for nearly every type of soil, location or condition. Plants are not only grown for their beauty but for shelter, privacy, decoration in the house, attraction for birds and bees among other uses. Selecting them for a specific purpose or location is as important as placing the right plant for the right place in a well-planned landscape. Gardeners should be concerned with what the plant will look like in several years. The growth of plants depends, naturally, on how they are cultivated and maintained.

Most trees and shrubs can be planted any time except when the ground is frozen. Planting time for most annuals and perennials is about May 15 or when the danger of frost is past.

What earth-moving machines take away, man must replace if nature is to be kept in balance.

The lists in this booklet have been checked for accuracy by the Department of Horticulture, University of Maryland, which offers numerous fact sheets and bulletins free of charge to Marylanders on many topics of general and specific interest to gardeners, both amateur and professional. These publications are available through the extension agents, horticulture, in various Maryland counties.

About the Author . . .

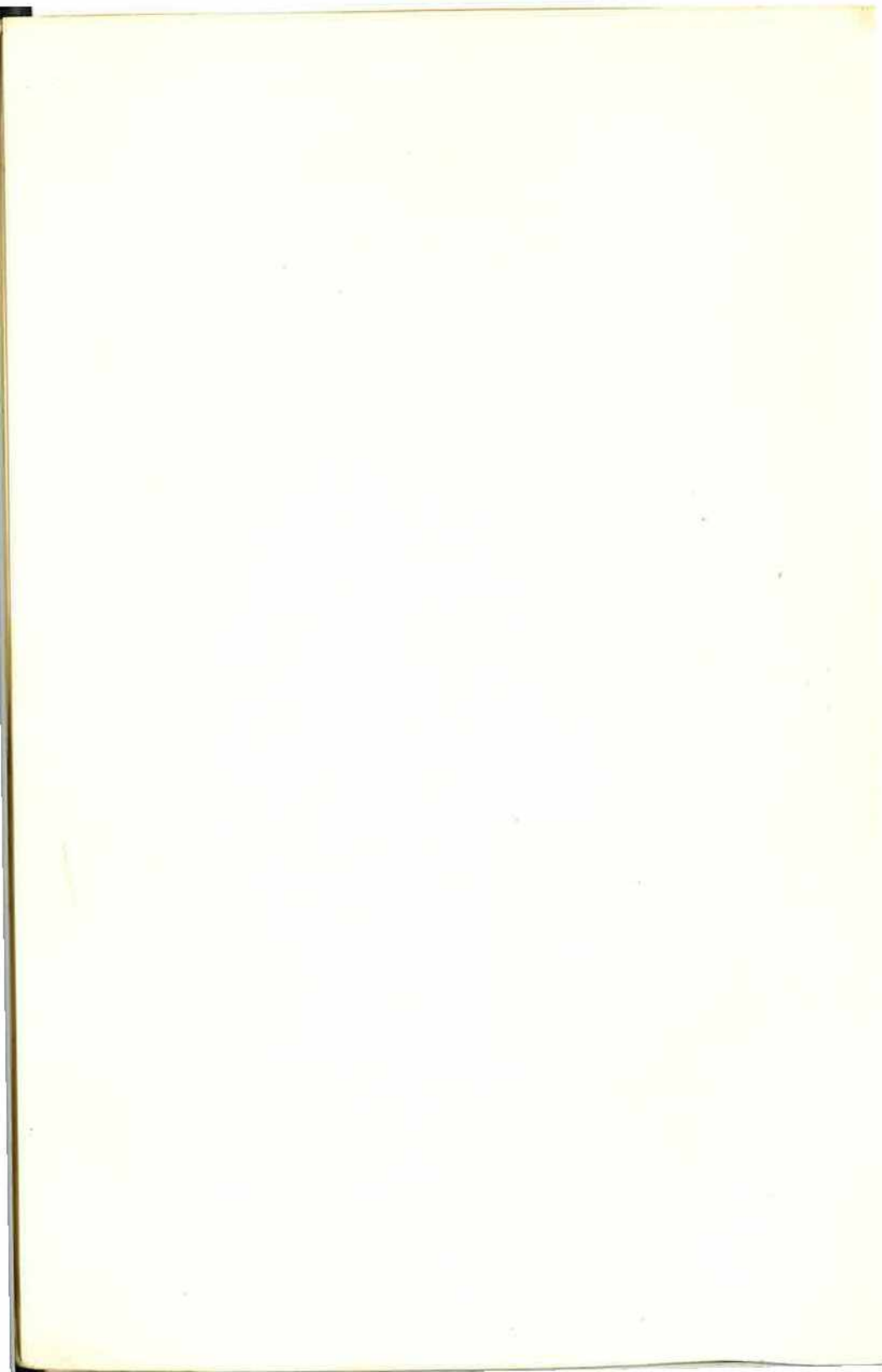


Francis Rackemann, Garden Editor of The Evening Sun since March 1963, came to Baltimore in November 1954, from Meriden, Conn., where he served 2½ years as a reporter-photographer on The Meriden Journal.

A native of Boston, he attended Brooks School, Trinity College in Hartford, Columbia University, the Boston Museum School of Fine Arts and the Academy de la Grand Chaumiere in Paris.

Since 1954, he has covered schools, art, music, garden contests and is a general assignment reporter. He is founder of the Men's Garden Club of Maryland. His column "Fun with Gardening" appears each Friday on the Women's Pages of The Evening Sun.

He is a member of the Men's Garden Club of Maryland, life member of the Art Students League of New York, the Baltimore Symphony Orchestra Association and St. Anthony Hall fraternity. He served 3½ years as a quartermaster in the U. S. Naval Reserve during World War II. He is married to the former Adelaide Crawley, of Port Washington, Long Island, New York.



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Small Sites Need Careful Planning

Landscaping small properties in the Baltimore area requires careful planning, choice of material and proper maintenance in order to provide an attractive and natural setting for the house, outdoor family living and beauty to the neighborhood.

Each property should be treated individually. The extent of landscaping depends on size of the property, size and design of the house, topography and location.

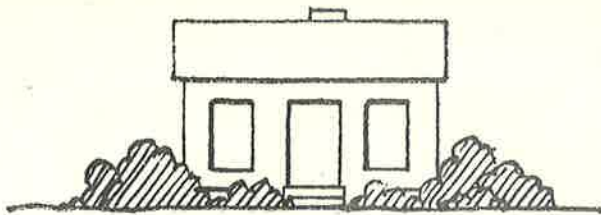
Property lines, views from the house itself, walks and drive-ways, entrances to the house and garage, public, private and service areas should be planned carefully along with specific areas for flower and vegetable gardens.

Trees and shrubs should be selected on the basis of what they will look like in ten or twenty years, not on how they look when they arrive from the nursery. Don't overplant, for too much material results in a cluttered, fussy effect and creates a maintenance problem. Keep the landscaping simple. Strict formality should be left to large estates and collecting a vast array of specimens to arboretums.

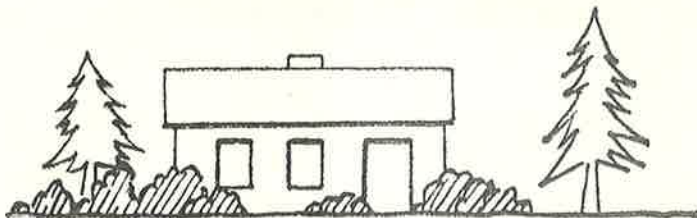
Trees and shrubs vary in height and form. Some are low growing and compact; others spread, form arches, are upright or globe-shaped. Some are better for hedges, shade, windbreaks, for accent or mass effect. Some are more resistant to insects and diseases than others. Some have specific soil and other cultural requirements.

While a small Norway spruce looks nice when a 3-foot tall, ball and burlapped tree is first planted under a picture window, the tree in fifteen years will not only block the view from the window but will be taller than the house.

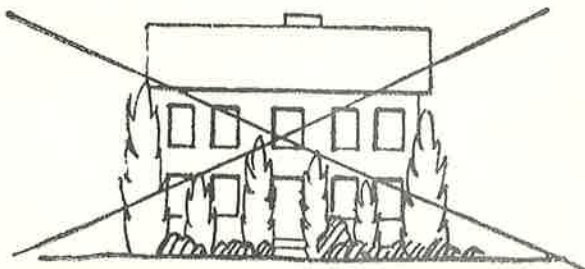
Some trees and shrubs, which are tall growing, can be kept pruned with constant maintenance.



Trees and shrubs add height and length.



Good low wall-foundation planting.



House lines detracted by columnar trees.

Dos And Don'ts On Foundation Planting

Here are some dos and don'ts on foundation plantings:

1. Do use enough material so that the planting looks complete, not spotty.
2. Do select colors, sizes, textures of materials to achieve interest and unity throughout the planting.
3. Choose material which requires little maintenance.
4. Don't use too much material so that the foundation planting looks too massive for the size of the house.
5. Don't use bright, glaring colors especially on the front of the house.
6. Don't use material which will outgrow the house, hiding entrance ways and windows.
7. Don't use the foundation planting as a collection bed for a wide variety of plants. These should be planted in the border or in special gardens.
8. Don't use too much variety in the selection of plants. Two or three related in color or texture will achieve more unity and a more attractive appearance.

TREES FOR SMALL PROPERTIES

Cherry, flowering	Lilac
Cherry, Kwansan	Magnolia, saucer
Crabapple, flowering	Maple, amur
Crape-myrtle	Maple, hedge
*Dogwood, flowering	*Maple, Japanese
Dogwood, Japanese	Pine, Austrian
Euonymus, broadleaf	*Pine, white
Franklinia	Redbud
Ginkgo	Russian Olive
Golden-chain	Silk-tree
Golden-rain	Silverbell
Hawthorn, cockspur	Smoke-tree
Hawthorn, Paul's scarlet	Snowbell
Hawthorn, Washington	Sourwood
*Hemlock, Canadian	Sweetgum
*Holly, American	*Viburnum, Blackhaw
*Hornbeam, American	Viburnum, Siebold

DECIDUOUS FLOWERING SHRUBS

Deutzia, slender	Spirea, Anthony Waterer
Forsythia	Spirea, Thunberg
Hydrangea, house	Spirea, Vanhouette
Jasmine, winter	Privet, Regel's
	Viburnum, Burkwood

EVERGREEN (NEEDLE) SHRUBS

Arborvitae, pyramidal
 Juniper, blue Sargent
 Juniper, Hetz
 Juniper Pfitzer
 Pine, Mugho
 *Yew, Hatfield
 *Yew, spreading English
 *Yew, dwarf spreading Japanese

*Partially tolerant of shade.

EVERGREEN (BROADLEAF) SHRUBS

*Abelia, glossy
 Andromeda, Japanese
 Azalea, hybrids
 Barberry, Juliana
 Barberry, warty
 Cotoneaster, rock
 Firethorn, Laland
 *Grape-holly
 Holly
 *Laurel
 Nandina
 Privet, waxleaf
 Rhododendron
 Viburnum, leatherleaf

GROUND COVERS

*Ivy, English	*Myrtie
Juniper, Andorra	*Pachysandra
Juniper, shore	*Wintercreeper
Juniper, Waukegan	

Trees To Plant In Metro Area

Trees provide shade, serve as windbreaks, screens and hedges for privacy, soften architectural lines of the house and add color to the property.

Trees keep soil from eroding, retain moisture and give shelter to birds. While many are imported from the Orient and Europe, a few are native to Maryland.

The following list of trees collected from various bulletins and fact-sheets prepared by the University of Maryland are recommended for homes in the metropolitan Baltimore area.

TREES (Evergreen)

- ARBORVITAE**, American (*Thuja occidentalis*). Coniferous evergreen to 50'. Pyramidal.
- ARBORVITAE**, American umbrella (*Thuja occidentalis* 'Umbraculifera'). Coniferous evergreen tree to 8'.
- ARBORVITAE**, pyramidal (*Thuja occidentalis* 'Fastigiata'). Coniferous evergreen tree. Medium-sized to 40'. Columnar.
- ARBORVITAE**, Woodward's globe (*Thuja occidentalis* 'Woodwardi'). Coniferous evergreen tree to 8'. Small.
- CEDAR**, deodar (*Cedrus deodara*). Graceful evergreen tree to 100'. Needles 2 inches long, dark, bluish-green.
- CYPRESS**, dwarf Lawson (*Chamaecyparis lawsoniana*). Coniferous evergreen medium size to 20'.
- CYPRESS**, Hinoki (*Chamaecyparis obtusa*). Coniferous evergreen tree to 75'. Slow-growing. Requires acid soil.
- CYPRESS**, dwarf Hinoki (*Chamaecyparis obtusa* 'Nana'). Coniferous evergreen tree to 8'. Dense.
- CRYPTOMERIA**, Japanese Temple tree (*Cryptomeria japonica* 'Lobbi'). Pyramidal evergreen tree to 50' or more. Dense, narrow. Dark green.
- FIR**, Nordmann (*Abies nordmanniana*). Coniferous evergreen tree to 100'. Dark shiny needles, whitish underneath.
- HEMLOCK**, Canadian (*Tsuga canadensis*). Coniferous evergreen tree to 50' or more. Graceful. Dark green. Tolerant of shade. Suitable for hedges. Native.
- HOLLY**, American (*Ilex opaca*). Evergreen tree to 45'. One of the most valuable native ornamentals. Slow-growing, pyramidal form with dense branching. Bright red berries on female plants. Leaves evergreen, spiny, not waxy. Good for hedges.
- INCENSE-CEDAR** (*Libocedrus decurrens*). Coniferous evergreen to 100'. Pyramidal in form. Dark green.

MAGNOLIA, southern (*Magnolia grandiflora*). Fine specimen evergreen tree to 100'. Dense pyramidal form. Requires plenty of space. Large white fragrant flowers in May and June. Large glossy evergreen leaves. Limited to Southern Maryland.

PINE, Austrian (*Pinus nigra*). Evergreen tree to 75' or more with spreading branches, stiff dark green needles.

PINE, Japanese black (*Pinus thunbergi*). Evergreen tree to 90'. Dense spreading, often pendulous branches. Two needles in bundle. Excellent for seashore.

PINE, red or Norway (*Pinus resinosa*). Coniferous evergreen to 75' or more with spreading branches. Light green.

PINE, Virginia (*Pinus virginiana*). Evergreen tree to 45'. Native scrub pine of Maryland. Will grow in poor, dry soils where other pines won't. Sparse branching. Often has wide stiff top. Needles in bundles of two. Native.

PINE, white (*Pinus strobus*). Evergreen tree to 125'. Excellent as ornamental. Delicate, graceful foliage is soft green the year round. Good for background. Young trees are dense and often pyramidal in habit. Easily transplanted. Withstands shearing if properly done. Fast-growing. Has five needles in bundle. Bluish-green. Native.

SPRUCE, Colorado blue (*Picea pungens* 'Glauca'). Coniferous evergreen to 75'. Steel blue.

SPRUCE, Norway (*Picea abies*). Evergreen tree to 100' or more. Dark green pendulous branchlets.

TREES (Deciduous)

ASH, flowering (*Fraxinus ornus*). Shade tree to 65'. Fragrant white flowers in May. Winged samara. (Not readily available).

ASH, red (*Fraxinus pennsylvanica*). Shade tree, 50'. Fast growing. Smaller than white ash. Found naturally along river banks and lowlands. Shallow, fibrous root system. Better suited for moist conditions than white ash. Yellow fall color. Native.

ASH, white (*Fraxinus americana*). Shade tree to 120'. Forest or field. Rich soil. Fast growing. Vigorous. Yellow autumn color. Erect habit with rounded top. Used widely for landscaping. Native.

BEECH, American (*Fagus grandiflora*). Shade tree to 100'. Fine, slow growing native tree. Excellent form and good foliage. Very shallow roots. Doesn't stand city conditions. Hardier than European beech. Seldom grown by nurserymen. Smooth, pale gray bark. Native.

BEECH, European (*Fagus sylvatica*). Shade tree to 100' with low spreading branches. Not suitable for street tree because it requires too much space. Varieties: weeping and copper forms attractive. Yellow fall color.

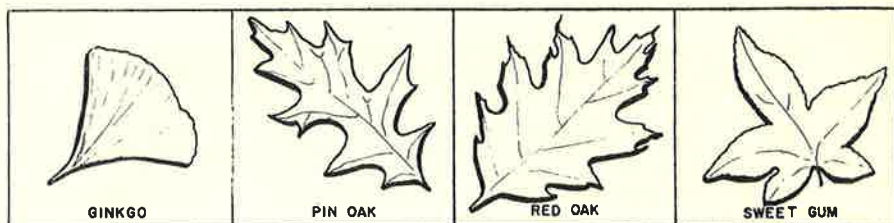
BIRCH, canoe (*Betula papyrifera*). Deciduous tree to 50'. White flaking bark. Ornamental tree. Subject to birch borer.

BIRCH, river (*Betula nigra*). Only birch native to Maryland. Common along rivers and streams. Rough peeling light brown bark. Native.

BIRCH, weeping (*Betula pendula*). Deciduous tree to 50' with graceful pendulous branches. White bark. Yellow fall color.

CATALPA (*Catalpa bignonioides*). Fast growing shade tree to 45'. Weak-wooded and short-lived. Coarse foliage. Long seed pods. Native.

- CHERRY**, weeping (*Prunus subhirtella pendula*). To 30' with spreading branches. Gives fountain effect. Grown primarily for its small single pink flowers which appear in late April.
- CHERRY**, Kwanzan (*Prunus serrulata 'Kwanzan'*). To 18'. Grown as specimen tree for its deep pink, double flowers. Little ornamental value except during flowering season. Requires well-drained area, fertile soil and sun. Stiff habit of growth.
- CHERRY**, Sargent (*Prunus sargentii*). To 75'. Large fast-growing tree best used as specimen for parks and other large properties. Upright form with rounded top. Flowers single. Blooms in late April. Leaves appear after bloom. Red fall color.
- CHERRY**, Yoshino (*Prunus yedoensis*). Fast growing tree to 50'. Flat topped and bushy at maturity. Grown primarily for their flowers which are single white to pink. Blooms late April. Should be planted at least 30 feet apart. Most famous at Washington's Tidal Basin.
- CHESTNUT**, Chinese (*Castanea mollissima*). Slow growing tree to 60'. Dense foliage and round habit of growth. Blight resistant varieties, introduced by the U.S.D.A., are self-sterile and require more than one tree to produce nuts.
- CHRISTMAS**, berry (*Photinia villosa*). Shade tree under 25'. White flowers in May. Red berries in clusters. Good red color for autumn. (Not readily available).
- CORK TREE**, amur (*Phellodendron*). Shade tree to 50'. Handsome foliage and bark. Black berry-like fruit.
- CRAB**, Aldenham purple (*Malus aldenhamensis*). To 25', dark, reddish-green foliage, slightly bronze especially in spring. Reddish-purple flowers in late April followed by same color fruit. Blooms two or three times a year. Must be pruned every two or three years.
- CRAB**, Arnold (*Malus arnoldiana*). To 20'. Fast growing. Upright form. Tips of branches droop slightly. Branches may be dense near ground. Flowers late April. Pink fading toward white. Fruit yellow.
- CRAB**, flowering (*Malus floribunda*). To 30'. Red fruit. Rose-pink flowers.
- CRAB**, Siberian (*Malus baccata*). To 45'. Rich soil. Most hardy of flowering crabs. One of the tallest of crabs. Should not be used on small properties. Produces white flowers in late April. Vigorous with upright form. Narrow, dense head. Fruits either red or yellow.
- CRAB**, tea (*Malus hupehensis*). To 24'. Valued as much for its beautiful vase shape as for its mass of fragrant white flowers in early May. Most effective in landscape plan. Specimen.
- CRAB**, Sargeant (*Malus Sargentii*). To 8'. Smallest of flowering crabs. May be as broad as it is tall. Covered with pure white, fragrant blossoms in early May. Red fruit.
- CYPRESS**, bald (*Taxodium distichum*). Deciduous coniferous trees to 75'. Native tree of southern swamp areas where it produces cypress knees. Will also grow under normal garden conditions. Graceful, pyramidal form. Will grow in standing water.
- DOGWOOD**, Cornelian cherry (*Cornus mas*). To 24'. One of the earliest of the spring flowering trees. Bright yellow flowers appear before the leaves. Sturdy, vigorous. Useful as specimen, small tree or as a hedge. Unaffected by disease or insects.



DOGWOOD, flowering (*Cornus florida*). To 40'. Best native ornamental tree growing in Maryland. Flowers with large bracts appear before the leaves in May and can last three to four weeks. Red fruit and scarlet leaves attractive in fall.

DOGWOOD, red flowering (*Cornus florida rubra*). Shade tree under 25'. Pink flowers and red fruit.

DOGWOOD, Japanese (*Cornus kousa*). To 20'. Blooms about a month after the native dogwood. Bracts are pointed at end. Vivid red fall color. Fruit resembles a strawberry.

ELM, American (*Ulmus americana*). Excellent shade tree to 120'. Most popular shade tree in North America. Unique vase-shape form. Susceptible to disease and insects. Therefore should be planted with discretion. Native.

ELM, Buisman (*Ulmus carpinifolia* 'Buisman'). Shade tree over 50'. Resistant but not immune to Dutch elm disease.

ELM, Chinese (*Ulmus parvifolia*). Fast growing tree to 50'. Somewhat resistant to Japanese beetle. Dense foliage. Leaves small, dark green. Easily transplanted. Reddish fall color.

EMPRESS-TREE (*Paulownia tomentosa*). Shade tree to 50'. Wide spreading. Sun. Shelter from wind. Has run wild in East. Blooms in May. Purple flowers, brown pods. Fast growing, with large leaves.

FRANKLINIA (*Franklinia alatamaha*). Small tree to 25'. Crimson fall color. White solitary flowers in late summer.

FRINGETREE, American (*Chionanthus virginicus*). Under 25'. Leaves appear in late spring. Drooping white flower clusters. Deciduous shrub or small tree. Native.

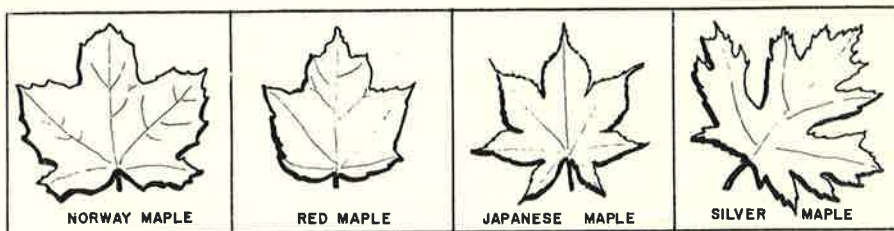
GINKGO (*Ginkgo biloba*). Shade tree to 120'. Wide fan-shaped branches. Leaves small and fan-shaped. Yellow fall color. Tolerant of city conditions. Long-lived and durable. Only male plants should be used as street trees as the fruit of the female tree has a very offensive odor when crushed.

GUM, black (*Nyssa sylvatica*). Excellent native tree to 90' for growing in wet conditions. Pyramidal in shade with lustrous green foliage turning scarlet or orange in fall. Difficult to transplant. Should be moved when young. Native.

GOLDEN-CHAIN tree (*Laburnum waterlei*). Shade tree under 25'. Drooping yellow racemes in June.

GOLDEN-RAIN tree (*Koeleruteria paniculata*). Fast growing shade tree to 30'. Small yellow flowers in large upright clusters in summer. Flowers followed by yellowish bladder-like seed pods. Tolerant of heat and drought. Wide range of soils and conditions. Short-lived, weak-wooded.

- HARDY-ORANGE** (*Poncirus trifoliata*). Deciduous small tree to 15'. Branches dull green with stout thorns. Very dense. Small bright yellow fruits in fall. True citrus. Withstands city conditions. Pest free. Good for hedges.
- HAWTHORN**, cockspur (*Crataegus crus-galli*). To 15'. Wide horizontal branches. Thick, glossy leaves which turn orange or scarlet in fall. Plentiful white flowers in May and June. Useful as specimen tree. Excellent for hedges or barriers. Native.
- HAWTHORN**, English (*Crataegus oxyacantha*). Deciduous tree to 15' with spreading, dense branches.
- HAWTHORN**, Paul's scarlet (*Crataegus oxyacantha* "Pauli"). Deciduous tree to 25'. Excellent for ornamental bright scarlet flowers.
- HAWTHORN**, Washington (*Crataegus phaenopyrum*). To 20'. Considered best among hawthorns. Upright habit of growth. Dense. Profuse bloom. Flowers in white clusters in June, followed by red fruits. Leaves bright scarlet or orange in fall. Specimen or lawn tree. Good for highway planting.
- HICKORY**, pecan (*Carya pecan*). To 150'. Fastest growing of the hickories. Grown for nuts. Prefers rich, moist bottomlands adjacent to rivers and streams. Foliage not too dense. Turns beautiful yellow in fall. Hardy in south only. Native.
- HICKORY**, shagbark (*Carya ovata*). To 120'. Best of hickories for ornamental purposes. Narrow, upright habit. Likes poor soil and hillsides. Difficult to transplant after certain size. Golden brown color in fall. Native.
- HONEYLOCUST** (*Gleditsia trianthos*). Good shade tree to 100'. Excellent for city conditions. Easily transplanted. Well-adaptable to most soil conditions. Thornless varieties such as *elegantissima* and *inermis*. Native.
- HORNBEAM**, American (*Carpinus caroliniana*). Also called ironwood or blue beech. Slow growing tree to 35'. Bark is smooth gray. Trunk is irregular. Makes nice clean tree requiring little care. Yellow to orange fall color. Should be transplanted young. Native.
- HORNBEAM**, European (*Carpinus betulus*). Slow growing to 60'. Good for hedges. Fine foliage. Will withstand shearing better than American hornbeam.
- HORNBEAM**, hop (*Ostrya virginiana*). Shade tree to 65'. Likes gravelly uplands. Hanging bunches of yellowish pods. Native.
- HORSECHESNUT** (*Aesculus hippocastanum*). Good street tree to 80'. Covered with long upright, foot-long panicles of white flowers in May. Subject to wind damage. Leaves subject to disease causing early defoliation in summer. Messy fruits.
- KATSURA-TREE** (*Cercidiphyllum japonicum*). Bushy tree to 50'. Lower branches to the ground. Rich soil. Rounded form often with several trunks. Hardy and pest free. Yellow to scarlet fall color.
- KENTUCKY COFFEE TREE** (*Gymnocladus dioica*). Irregular tree to 90' with peculiar rough-bark, twigless branches and broad compound leaves. Pest free. Often considered a "dirty tree" because it drops its large leaves and seed pods over a long period of time. Native.
- LARCE** European (*Larix decidua*). Deciduous conifer to 50'. Graceful, pyramidal with branches to the ground.



LINDEN, American (*Tilia americana*). Fast growing tree to 100'. Short trunk with low, wide-spreading branches. Coarse in texture. Free of disease and insects. Easily transplanted. Native.

LINDEN, little-leaf (*Tilia cordata*). Slow growing tree to 90'. Dense habit of growth and pyramidal form. Excellent for shade and street. Will grow under adverse conditions.

LINDEN, pendent silver (*Tilia petiolaris*). Deciduous tree to 75' with large pendulous branches. Good for large estates.

MAGNOLIA, cucumber (*Magnolia acuminata*). Shade tree to 100'. Prefers gravelly soil. Grows like an oak. Red fruit in September. Native.

MAGNOLIA, saucer (*Magnolia soulangeana*). To 30'. Usually several main trunk. Cup-shaped, white to purple flowers that open before the leaves in late April.

MAGNOLIA, star (*Magnolia stellata*). To 20'. Very fragrant flowers. One of the earliest of the magnolias to bloom. Good specimen tree.

MAGNOLIA, sweet bay (*Magnolia virginiana*). To 50'. Grows well in moist areas. Half-evergreen. White, fragrant flowers in late spring. Native.

MAPLE, amur (*Acer glabrum*). Dense shrub or multiple-trunked tree to 20' with small leaves. Very hardy, excellent for specimen tree or screening. Bright red fruits in summer. Scarlet fall color.

MAPLE, box elder (*Acer negundo*). Very fast growing shade tree to 75' in five or six years. Shallow roots, short-lived. Can become a pest because of rapid growth and plentiful seed supply. Usually has poor form. Not generally recommended. Native.

MAPLE, hedge (*Acer campestre*). Useful tree to 25' for clipped hedges and screens. Grows rapidly. Requires little attention.

MAPLE, Japanese (*Acer palmatum*). Slow growing, small bushy specimen tree to 20'. Beautiful foliage in spring. Tints of red. Best of many varieties: *atropurpureum*—dwarf spreading tree with purple-red foliage all summer; *dissectum*—leaves are divided almost to the base into five to nine lobes, each deeply cut, leaves green.

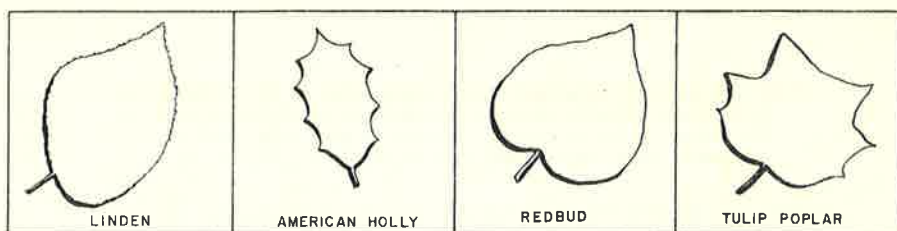
MAPLE, Norway (*Acer platanoides*). Shade tree to 90'. Round headed. Fast growing. Very popular. Tight habit of growth making dense shade. Good dark green foliage. Yellow fall color. Easily transplanted. Suitable for city conditions. Varieties.

MAPLE, red (*Acer rubrum*). Shade tree to 120'. Medium-fast growing. Likes low, damp soil. Not adaptable for city conditions because it becomes brittle with age. Native.

MAPLE, silver (*Acer saccharinum*). Native shade tree to 120'. Grows rapidly. Wood is brittle and roots cause problems by entering sewer lines. Undersurface of leaves is silvery. Native.

MAPLE, sugar (*Acer saccharum*). Shade tree to 120'. Slow growing. Strong-wooded, hardy. Requires little care. Provides dense shade. Yellow-orange or red fall color. Susceptible to damage by gas and smoke making it unsuitable for city conditions. Native.

- OAK, pin** (*Quercus palustris*). Fast growing tree to 75'. Pyramid form with dense, drooping branches. Excellent as specimen or lawn tree. Not suitable for tree planting because of pendulous lower branches interfering with traffic. Fine texture. Bright scarlet fall color. Native.
- OAK, red** (*Quercus borealis*). Fast growing tree to 75'. Popular for ornamental planting. Easily transplanted. Withstands city conditions. Good street tree. Red fall color. Native.
- OAK, scarlet** (*Quercus coccinea*). Medium-fast grower to 75'. Difficult to transplant. Once established it will grow well in dry, sandy soils. Bright scarlet fall color. Native.
- OAK, white** (*Quercus alba*). Massive, wide-spreading tree to 150'. Good, long-lived permanent tree with crimson or scarlet fall color. Slow-growing. Difficult to transplant after young. Native.
- OAK, willow** (*Quercus phellos*). Fast-growing tree to 70'. Rounded top to conical form. Easily transplanted. Makes good street tree. Very fine texture. Spring foliage is bright green. Native.
- OSAGE-ORANGE** (*Maclura pomifera*). Deciduous tree to 60' with orange-like fruit, green, open tree. Irregular growth, rounded top, thorny. Yellow fall color.
- PAGODA**, Japanese tree or Chinese Scholar tree (*Sophora japonica*). Slow growing tree to 75'. Good for shade. Dark compound leaves. White pea-like flowers in large pyramidal upright clusters in August. Withstands city conditions.
- PEACH**, double flowering (*Prunus persica plena*). Small flowering tree to 25'. Blooms in early spring.
- REDBUD or JUDAS TREE** (*Cercis canadensis*). Medium to fast-growing tree to 25'. Blooms in May. Masses of small, delicate rosy purple flowers covering branches before leaves appear. Also a white variety (*alba*). Native.
- REDWOOD**, dawn (*Metasequoia glyptostroboides*). Fast-growing tree to 100'. Introduced from China in 1945. Grows well in any soil. Hardy. Upright, pyramidal form.
- RUSSIAN-OLIVE** (*Elaeagnus angustifolia*). Small tree up to 25'. Blooms in late spring. Outstanding silver gray foliage.
- SASSAFRAS** (*Sassafras albidum*). Shade tree to 50'. Attractive color all year. Orange to scarlet fall color. Often grows in poor, gravelly soil. Difficult to transplant. Native.
- SHADBLOW** or serviceberry (*Amelanchier canadensis*). Shade tree to 30'. Early white blossoms. Best in wooded hillsides. Native.
- SILK-TREE** (*Albizia julibrissin*). Fast-growing small trees to 35'. Known primarily for its prominent pink flowers during the summer. Will grow well on poor, gravelly soil. Flat topped. Spreading with either single or multiple trunks. Variety *rosea* considered more hardy in northern areas. Commonly but erroneously called "mimosa."
- SILVERBELL**, Carolina (*Halesia carolina*). Shade tree to 25'. Drooping white flowers in April.
- SMOKE-TREE**, American (*Cotinus americanus*). Deciduous tree to 30'. Upright in habit with dense foliage. Featherly flowers resemble smoke.



SNOWBELL, Japanese (*Styrax japonica*). Shade tree under 25' with drooping white flowers from May to June. Plant in spring only.

SOURWOOD or sorrell tree (*Oxydendrum arboreum*). Tree to 75' with graceful, pyramidal habit of growth. Small white flowers in pendulous racemes during latter part of June. Bright scarlet fall color. Superior native ornamental.

SWEETGUM (*Liquidambar styraciflua*). Pyramidal specimen tree to 125'. Beautiful at all stages. Winged branches, with profusion of star-shaped leaves which turn yellow, orange or scarlet in fall. Difficult to transplant when large. Seed pods become lawn problem.

SYCAMORE (*Platanus occidentalis*). To 125'. Massive trunk with shedding outer bark and white inner bark. Likes damp, rich soil in valleys. Native.

TREE-OF-HEAVEN (*Allanthus altissima*). Extremely fast-growing tree to 60'. Not recommended for landscape. Will grow and thrive under most unfavorable conditions. Wet or dry soils. Not susceptible to any serious disease or insect pest. Disadvantages: very brittle, offensive shaped.

TULIP-TREE (*Liriodendron tulipifera*). Shade tree to 100'. Fast growing. Requires plenty of space. Easily transplanted when small. Not seriously affected by insects or diseases. Yellow fall color. Native.

VIBURNUM, blackhaw (*Viburnum prunifolium*). Shade tree under 25'. White flowers in May. Purple fruits in fall. Good fall color. Native.

VIBURNUM, Siebold (*Viburnum sieboldi*). Shade tree under 25'. Blooms mid-June. Creamy white to pink flowers.

WALNUT, black (*Juglans nigra*). Shade tree to 100'. Forest or field. Stately tree but subject to caterpillars. Edible nuts. Native.

WALNUT, English or Persian (*Juglans regia*). Shade tree to 100'. Rich soil. Edible nut.

WEeping WILLOW (*Salix babylonica*). Fast-growing tree to 30'. Grows well in moist areas. Long pendulous branches. Bright green leaves in early spring. Weak-wooded. Susceptible to breakage by ice, snow.

ZELKOVA, Japanese (*Zelkova serrata*). Shade tree over 50'. Yellow fall color. Can be a substitute for American elm as a street tree.

Shrubs Proposed For This Area

Shrubs are used for foundation plants, as hedges for privacy and protection against the elements, and as ornamental specimens for adding color to a landscape.

Shrubs can be evergreen, half-evergreen or deciduous (lose their leaves in winter). They vary in size, shape, form and color. Many have specific cultural requirements pertaining to location, exposure and soil. Like trees, shrubs should be selected for ultimate growth, although they can be trimmed for desired effect by constant, careful pruning.

Symbols

ESp—Early spring (bloom)

LSp—Late spring

S—Sun

ESu—Early summer

LSu—Late summer

Sh—Shade

ABELIA, glossy (*Abelia grandiflora*). Deciduous flowering shrub; half evergreen. 5' S or Sh, protected, soil light, peaty. Leaves shiny dark green. Flowers white, flushed pink panicles. June to September. Good for facing or hedging.

ACANTHOPANAX, five-leaf (*Acanthopanax sieboldianus*). Spreading deciduous shrub 7-8' with arching branches. LSu. White flower, black fruit. Sun. Rich, heavy soil.

AUCUBA, Japanese (*Aucuba japonica*). Evergreen shrub to 8'. Good for hedges. Slightly tender. Needs protection. Shade. Heavy soil. Red berries on female plants.

ALTHEA, Rose of Sharon (*Hibiscus syriacus*). Deciduous shrub to 20'. Sun Shade. LSu. Brown fruit. White, red, purple flowers.

ANDROMEDA, Japanese (*Pieris japonica*). Evergreen shrub to 7' with spreading branches. Shiny green leaves. White flowers. Tolerant of shade. Acid soil. April-May.

AZALEA, hybrids. Wide variety of deciduous evergreen or half-evergreen shrubs ranging from dwarf to 12' in height. Acid soil. S or Sh. Varieties for succession of bloom. April through July.

BAMBOO, heavenly (*Nandina domestica*). Evergreen upright shrub 6-8' with graceful foliage and glossy red berries in large panicles. Excellent for color. Slightly tender.

- BARBERRY**, Chenault (*Berberis chenaulti*). Broadleaved exergreen shrub to 6' with sharp thorns. Highly recommended. Dark berries. Yellow flowers.
- BARBERRY**, Japanese (*Berberis thunbergi*). Deciduous spiny shrub to 6'. Excellent for hedges. Leaves turn scarlet in fall. Bright red berries.
- BARBERRY**, redleaf Japanese (*Berberis thunbergi* 'Atropurpurea'). Deciduous shrub to 5'.
- BARBERRY**, warty (*Berberis verruculosa*). Evergreen shrub to 2'. Yellow flowers in April. Sun. Requires protection.
- BARBERRY**, wintergreen (*Berberis julianae*). Handsome evergreen shrub to 5' with bluish-black, bloomy berries. Yellow flowers. One of the hardiest.
- BARBERRY**, dwarf wintergreen (*Berberis julianae* 'Nana'). Compact evergreen shrub to 4'. Dark green leaves, shiny. Bluish-black berries. Suitable for hedges.
- BAYBERRY**, northern (*Myrica pensylvanica*). Deciduous shrub, 6-10'. Gray berries. Native.
- BEAUTY-BERRY** (*Callicarpa dichotoma*). Deciduous upright shrub to 4'. Lilac-violet berries in late fall.
- BEAUTY-BUSH** (*Kolkwitzia amabilis*). Deciduous shrub to 6'. LSp. Pink flowers. Sun. Requires good drainage. June.
- BOX**, American or tree (*Buxus sempervirens*). Evergreen shrub. To 10'. Half shade. Rich in humus.
- BOX**, dwarf or English (*Buxus sempervirens* 'Suffruticosa'). Evergreen shrub to 6'. Half shade. Rich in humus. Good for edging.
- BUTTERFLY-BUSH**, orange-eye (*Buddleia davidi*). Deciduous shrub to 10'. LSu. Many varieties and colors. White through pink and purple.
- CAMELLIA**, fall-flowering (*Camellia sasanqua*). Evergreen shrub. Many varieties. Tolerant of shade. Slightly tender. Good for hedges. Flowers in October.
- CAMELLIA**, spring-flowering (*Camellia japonica*). Evergreen shrub to 6'. Shiny leaves. Flowers April to June. Many varieties from white to red with double flowers. Tolerant of shade. Needs protection.
- CHERRY**, Cornelian (*Cornus mas*). Deciduous tree like shrub to 10' Sh and Sun. Scarlet fruit. Golden yellow flowers. March.
- CHERRY**, Manchu (*Prunus tomentosa*). Deciduous shrub 6-10' ESu. White flowers, red fruit. For sun. Requires well-drained loam.
- CHOKEBERRY**, black (*Aronia melanocarpa*). Deciduous shrub to 4'. Bright green leaves. Red in fall. Fruits shiny black. (Not readily available.) Native.
- CHOKEBERRY**, red (*Aronia arbutifolia*). Deciduous shrub to 9'. Sun. Shade. Moist soil. Red fruit, white, pinkish flowers. May. Leaves turn red in fall. Native.
- CINQUE-FOIL** (*Potentilla fruticosa*). Deciduous shrub less than 5'. LSu. Yellow flowers all summer.
- CORALBERRY** or Indiancurrant (*Symphoricarpos orbiculatus*). Deciduous shrub to 3'. Purple-red berries in clusters along slender arching branches.
- COTONEASTER**, bearberry (*Cotoneaster dammeri*). Broadleaf evergreen shrub to 1'. With long trailing and rooting branches. Glossy dark green leaves. Red berries. Good for ground cover.

- COTONEASTER**, creeping (*Cotoneaster adpressa*). Prostrate deciduous shrub to 6". With branches close to the ground. Bright red berries. Sun. Well-drained soil.
- COTONEASTER**, Hupeh (*Cotoneaster 'Hupehensis'*). Deciduous shrub to 5'. LSp. Bright red berries in clusters.
- COTONEASTER**, rockspray (*Cotoneaster horizontalis*). Deciduous or half-evergreen shrub to 2'. Good as ground cover with branches spreading. Leaves turn red and orange in fall. Small red berries.
- COTONEASTER**, rockspray (*Cotoneaster racemiflora* 'Songarica'). Deciduous shrub to 6'. With arching branches. Berries in red clusters.
- COTONEASTER**, willowleaf (*Cotoneaster salicifolia* 'Floccosa'). Deciduous shrub. Very showy. Easy to grow. Red berries. White flower.
- CRAPE-MYRTLE** (*Lagerstroemia indica*). Deciduous shrub. 15-20'. Sun. LSu. Varieties: white, purple, pink, reddish flowers. Smooth peeling bark.
- CYPRESS**, Cripp's (*Chamaecyparis obtusa* 'Crippsi'). Coniferous evergreen shrub over 20'. Bright-tipped branches.
- DEUTZIA**, fuzzy (*Deutzia scabra*). Deciduous shrub. 6-10'. ESu. White flowers.
- DEUTZIA**, Lemoin (*Deutzia lemoinel*). Deciduous shrub to 5'. White flowers in pyramidal panicles, freely produced. May to June.
- DEUTZIA**, slender (*Deutzia gracilis*). Deciduous shrub. 3-6'. Sun. Well-drained soil. Slender branches. White flowers. ESu.
- DOGWOOD**, bloodtwig (*Cornus sanguinea*). Deciduous shrub. 6-10'. White flowers, black fruit. ESu. Red stems. Colorful in winter.
- DOGWOOD**, red Osier (*Cornus stolonifera*). Deciduous shrub to 8'. Sun. Wet soil. White fruit. Bright red twigs. Dull white flowers. May. Useful for roadside slopes in highway planting.
- DOGWOOD**, silky (*Cornus amomum*). Deciduous shrub. 3-10'. Sun. Wet soil. Blue fruit. White flowers June.
- DOGWOOD**, Tatarian (*Cornus alba*). Deciduous shrub. 5-10'. Sun. Shade. Wet soil. Bluish white fruit. Creamy white flowers. May or June. Red stems for winter color.
- DOGWOOD**, yellowstem (*Cornus stolonifera* 'Flaviramea'). Deciduous shrub. 5-6'. Valuable for its yellow branches.
- ELAEAGNUS**, thorny (*Elaeagnus pungens*). Evergreen shrub. 8-15'. Sun. Spreading branches. Dark glossy green leaves. Good for hedges. Inconspicuous flowers. Fragrant.
- EUONYMUS**, winged (*Euonymus alatus*). Deciduous shrub. 6-8'. Sun. Well-drained soil. Branches are stiff and corky. Leaves turn a rosy-scarlet in fall.
- EUONYMUS**, dwarf winged (*Euonymus compactus*). Deciduous shrub to 6'. Sun or shade. Any soil. Red berries.
- EUONYMUS** (*Euonymus kiautschovica*). Half-evergreen shrub, spreading to 6'. Pink fruits on slender stalks. Showy.
- FIRETHORN**, orange (*Pyracantha coccinea* 'Lalandi'). Evergreen shrub. 6-20'. Hardest of pyracanthas. Sun. Well-drained limestone soil. Orange-scarlet berries. White flowers. May-June. Excellent for hedges.
- FIRETHORN**, red (*Pyracantha atalantoides*). Evergreen shrub to 10'. With bright red berries in clusters. Thorny. Resents transplanting. Excellent for hedges.

- FORSYTHIA**, green stem (*Forsythia viridissima*). Deciduous shrub to 9'. Sun, Shade. Yellow flowers. April.
- FORSYTHIA**, showy border (*Forsythia intermedia* 'Spectabilis'). Deciduous upright shrub with spreading branches. 5-7'. ES. Yellow flowers.
- HOLLY**, Burford's Chinese (*Ilex cornuta burfordi*). Evergreen shrub to 9'. Sun. Well-drained soil. Red berries. Very heavy fruiting. Leaves less shiny. Hardier than other hollies. Good for hedges. Tolerant of shade. Will produce fruits without pollination.
- HOLLY**, convex Japanese (*Ilex crenata* 'Convexa'). Evergreen shrub to 5'. With convex, glossy dark green leaves. Good for hedges and city conditions. Tolerant of shade.
- HOLLY**, English (*Ilex aquifolium*). Evergreen tree to 35' with shiny leaves, bright red berries. Sun or light shade.
- HOLLY**, inkberry (*Ilex glabra*). Half-evergreen or evergreen shrub to 5-6'. With dark green glossy leaves and black berries. Useful as hedges, in damp area. Shade. Native.
- HOLLY**, Japanese Heller's (*Ilex crenata* 'Helleri'). Compact, low-growing evergreen shrub to 4'. With small, roundish leaves. Wider than its height. Suitable for hedges. Tolerant of shade.
- HOLLY**, round-leaf Japanese (*Ilex crenata* 'Rotundifolia'). Compact evergreen shrub to 6'. Leaves round and glossy. Tolerant of shade. Good for hedges.
- HOLLY**, small leaf Japanese (*Ilex crenata* 'Microphylla'). Evergreen shrub to 6'. Densely branched with small leaves. Excellent for hedges. Neat, most hardy. Black berries. Tolerant of shade.
- HOLLY-GRAPE** (*Mahonia aquifolium*). Evergreen shrub to 3'. Shade, dry sandy soil. Black berries. Yellow flowers. April.
- HONEYSUCKLE**, winter (*Lonicera fragrantissima*). Deciduous shrub 6-10'. ES. Cream-colored flowers from January through April.
- HONEYSUCKLE**, Tatarian (*Lonicera tatarica*). Deciduous shrub to 10'. Sun. Red berries, any soil. Rose, white flowers. May.
- HYDRANGEA**, house (*Hydrangea macrophylla* 'Otaska'). Deciduous shrub to 4'. Flowers pink or blue depending on soil acidity.
- HYDRANGEA**, snowhill (*Hydrangea arborescens* 'Grandiflora'). Deciduous shrub. 6-10'. ESu. White flowers.
- JASMINE**, winter (*Jasminum nudiflorum*). Deciduous shrub. 4-6'. Sun or part shade. 3 parted leaves. Rich soil. Yellow flowers in late winter and early spring.
- JETBEAD**, white (*Rhodotypos scandens*). Deciduous shrub to 4'. Sun. Shade. Any soil. Black berries. White flowers. May to fall.
- JUNIPER**, Andorra (*Juniperus horizontalis* 'Plumosa'). Evergreen shrub to 4'. Sun. Porous soil. Low or dwarf. Reddish foliage in winter and blue-green in summer.
- JUNIPER**, blue column Chinese (*Juniperus chinensis* 'Columnaris glauca'). Coniferous evergreen shrub. Medium-sized to 20'.
- JUNIPER**, blue Sargent's (*Juniperus chinensis* 'Sargentii'). Coniferous evergreen. Low or dwarf to 3'.
- JUNIPER**, Chinese (*Juniperus chinensis*). Evergreen shrub. 15-25'.
- JUNIPER**, Hetz (*Juniperus chinensis* 'Hetz'). Coniferous evergreen shrub. Small to 6'.

- JUNIPER**, Pfitzer (*Juniperus chinensis* 'Pfitzeriana'). Coniferous evergreen shrub to 8'. Sun, dry, sandy soil.
- JUNIPER**, shore (*Juniperus conferta*). Evergreen, needlelike low shrub for ground cover planting. Excellent for seashore. To 10'.
- JUNIPER**, Tamarix (*Juniperus sabina* 'Tamariscifolia'). Evergreen shrub to 3'.
- JUNIPER**, Waukegan (*Juniperus horizontalis* 'Douglasii'). Coniferous spreading evergreen shrub to 8'. Leaves turn lavender-purple in winter following blue-green in summer.
- KERRIA**, Japanese (*Kerria japonica*). Deciduous shrub to 4'. LSp. Green branches. Bright yellow flowers.
- LAUREL**, cherry (*Prunus laurocerasus* 'Schipkaensis'). Broadleaf evergreen shrub. Purple fruit. Yellowish flowers. To 8'.
- LAUREL**, mountain (*Kalmia latifolia*). Evergreen shrub to 8'. Shade. Sandy acid soil. White and pink flowers. Blooms in June. Native.
- LEUCOTHOE**, drooping (*Leucothoe catesbaei*). Evergreen shrub to 2'. Wine leaf color in fall and winter. Glossy green leaves.
- LILAC** (*Syringa*). Deciduous shrub. Many varieties. 5-10'. White, violet blue, lilac, magenta, purple, pink. Sun. Neutral soil.
- MOCK-ORANGE** (*Philadelphus coronarius*). Deciduous shrub to 6'. Creamy-white flowers. Very fragrant. June.
- MOCK-ORANGE**, virginian (*Philadelphus virginialis*). Deciduous shrub to 6'. White flowers, double or semi-double. June.
- OSMANTHUS**, holly (*Osmanthus illicifolius*). Evergreen shrub to 10'. With spiny-pointed and spiny-toothed, glossy dark green leaves. Fragrant flowers. Resembles holly leaf. Good for hedges. Slightly tender.
- PACHISTIMA** (*Pachistima canbyi*). Low evergreen ground cover to 12". Small dark green to bronze leaves. Requires acid soil. Shade. Excellent for rock gardens and foundation planting. Slow growing.
- PACHYSANDRA**, Japanese spurge (*Pachysandra terminalis*). Broadleaf evergreen. Does better in the shade. Good ground cover.
- PEARLBUSH**, Wilson's (*Exochorda giraldi* 'Wilsoni'). Deciduous shrub. Upright to 8'. White flowers. ESP.
- PERIWINKLE** (*Vinca minor*). Broadleaf evergreen. Flowers over long season. Blue flowers. Good ground cover.
- PERIWINKLE**, white (*Vinca minor* 'Alba'). Broadleaf evergreen. White flowers. Good ground cover.
- PHOTINIA**, Chinese (*Photinia serrulata*). Evergreen shrub to 20'. With large dark glossy leaves. Red berries. White flowers. Slightly tender. Needs protection. Sun, light, sandy soil. May. (Not readily available).
- PINE**, Mugo (*Pinus mugo* 'Mughus'). Evergreen, needlelike shrub to 8'. Varieties globe-shaped to prostrate. Subject to scale.
- PRIVET**, California (*Ligustrum ovalifolium*). Half-evergreen shrub. Upright to 12'. With glossy leaves. July-August. Most common hedge plant.
- PRIVET**, evergreen (*Ligustrum japonicum*). Evergreen shrub with dark green glossy leaves. Hardy. Good for hedges.
- PRIVET**, glossy (*Ligustrum lucidum*). Handsome semi-evergreen shrub. 25'. Or small tree with large, dark glossy leaves. White flowers. Sun, Shade. Any soil. Black berries. July. Good for hedges.

- PRIVET**, Regel's (*Ligustrum obtusifolium* 'Regelianum'). Deciduous shrub to 15'. Sun. Shade. Any soil. Black berries. White flowers. July-August. Graceful arching branches.
- QUINCE**, flowering (*Chaenomeles japonica*). Deciduous shrub to 3'. Sun. Yellow fruit. Flowers usually scarlet. March-April.
- QUINCE**, flowering (*Chaenomeles lagenaria*). Deciduous shrub. To 6'. Sun. Scarlet flowers. March-April.
- RHODODENDRON**, hybrids. Wide variety of broadleaf evergreen shrubs ranging in height from about 2' to 10'. Acid soil. S or Sh May.
- ROSE**, Carolina (*Rosa carolina*). Deciduous shrub to 3'. Sun, heavy clay soil. Red fruit, pink flowers. June-July.
- ROSE**, Father Hugo's (*Rosa hugonis*). Deciduous shrub to 8'. Sun, heavy clay soil. Red fruit. Sulphur-yellow flowers. May.
- SARCOCOCCA**, (*Sarcococca hookeriana* 'Humilis'). Evergreen shrub to 3'. With narrow fresh green leaves. Black berries. Good ground cover or suitable for low border edging. (Not readily available).
- SCOTCH**, broom (*Cytisus scoparius*). Deciduous shrub to 10'. Sun, lime soil. Yellow flowers. May or June.
- SNOWBALL**, Chinese (*Viburnum macrocephalum* sterile). Semi-evergreen shrub to 8' or more. White flowers, all sterile in very large round heads. ESu.
- SNOWBALL**, Japanese (*Viburnum tomentosum* 'Plicatum'). Deciduous shrub to 10'. All flowers sterile in round heads.
- SNOWBERRY** (*Symphoricarpos albus*). Deciduous shrub to 4'. Pinkish flowers. Snow white berries.
- SPIREA**, Anthony Waterer (*Spiraea bumalda*). Deciduous shrub to 3'. Dense foliage. Upright. Sun, neutral soil. Pink-red flowers. June.
- SPIREA**, double bridgewreath (*Spiraea prunifolia* 'Plena'). Deciduous shrub. 6-10'. ES. White flowers.
- SPIREA**, Thunberg (*Spiraea thunbergi*). Deciduous shrub to 3'. Sun, neutral soil. White flowers. ES.
- SPIREA**, Vanhoutte (*Spiraea vanhouttei*). Deciduous shrub to 6'. Arching branches. Dark green leaves, blue underneath. ES. White flowers. May.
- STEWARTIA**, wild camellia (*Stewartia pentagyna*). Shade tree or shrub. Under 25'. Creamy white flowers.
- ST. JOHNSWORT** (*Hypericum calycinum*). Evergreen or half-evergreen shrub to 1'. With dark green leaves, bluish underneath. Good ground cover. Spreads rapidly. Yellow flowers all summer. (Not readily available).
- ST. JOHNSWORT** (*Hypericum* 'Hildcote'). Deciduous shrub to 3'. With bluish green leaves. LSu. Yellow flowers all summer.
- STRANVAESIA** (*Stranvaesia davidiana*). Evergreen shrub to 10'. Long fresh green leaves. Scarlet berries in clusters. All winter. (Not readily available).
- SUMAC**, fragrant (*Rhus aromatica*). Deciduous spreading shrub to 3'. Fragrant. Leaves turn orange and scarlet in fall. Flowers yellowish. March-April.
- SUMAC**, shining (*Rhus copallina*). Deciduous shrub to 15' or small tree. Glossy leaves turn reddish-orange in fall. Showy crimson fruits. Native.

- SWEET-SHRUB**, Carolina allspice (*Calycanthus floridus*). Deciduous shrub to 6'. Flowers dark reddish brown. Strong spice fragrance.
- VIBURNUM**, blackhaw (*Viburnum prunifolium*). Deciduous shrub to 12'. ESu. Glossy leaves. Red-purple in fall. Black berries. Native.
- VIBURNUM**, Burkwood (*Viburnum burkwoodi*). Shrub to 4'. Esp. Semi-evergreen. Shade. Moist soil. White fragrant flowers.
- VIBURNUM**, European cranberry-bush (*Viburnum opulus*). Deciduous shrub to 10'. Sun or shade. Scarlet berries. White flowers. May-June.
- VIBURNUM**, leatherleaf (*Viburnum rhytidophyllum*). Evergreen shrub to 10'. Shaded in winter. Well-drained soil. Red to black berries. White flowers. May.
- VIBURNUM**, linden (*Viburnum dilatatum*). Deciduous shrub. One of the best red berry shrubs. To 10'. Sun. White flowers. June.
- VIBURNUM**, Korean spice (*Viburnum carlesi*). Deciduous shrub to 4'. Esp. Leaves retained late in fall. White flowers with pink outside. Very fragrant. Black fruit.
- VIBURNUM**, nanny-berry (*Viburnum lentago*). Deciduous shrub to 10'. ESu. Bright-colored leaves in fall. Berries change from red to blue-black. Native.
- VIBURNUM**, Siebold (*Viburnum sieboldi*). Deciduous shrub to 10'. Sun, damp soil. Lustrous leaves. Black berries. White flowers. June.
- VIBURNUM**, wayfaring tree (*Viburnum lantana*). Deciduous shrub to 12'. ESu. Large leaves wrinkled on top. Dark green turning red in fall. Berries change from red to black. Native. (Not readily available).
- WEIGELA**, old-fashioned (*Weigela florida*). Deciduous shrub to 10'. ESu. Pink flowers.
- WILLOW**, American pussy (*Salix discolor*). Deciduous shrub to 10'. Esp. Silvery flowers. Native.
- WINTERBERRY**, common (*Ilex verticillata*). Deciduous shrub. 8-10' Sun, wet soil. Red berries. White flowers. July.
- WINTERCREEPER** (*Euonymus radicans*). Evergreen shrubby climber or ground cover. Sun. Shade. Well-drained soil. June.
- WINTERCREEPER**, or evergreen bittersweet (*Euonymus radicans* 'Vegetus'). Evergreen shrub. Sun. Shade. Clusters of orange berries.
- WITCH-HAZEL**, Chinese (*Hamamelis mollis*). Deciduous shrub to 30'. With bright yellow flowers beginning in February and March. Very fragrant. Good specimen tree. Native.
- WITCH-HAZEL**, common (*Hamamelis virginiana*). Deciduous shrub to 10'. Hardest of the witch-hazels. Leaves turn bright yellow in fall. Flowers with bright yellow petals and brownish sepals in October and November. Native.
- YEW**, Brown's (*Taxus media* 'Browni'). Coniferous evergreen to 10'. Tolerant of shade. Suitable for hedges.
- YEW**, Hatfield's (*Taxus media* 'Hatfieldi'). Coniferous pyramidal evergreen to 10'. Tolerant of shade. Suitable for hedges.
- YEW**, Hick's (*Taxus media* 'Hicksi'). Coniferous columnar evergreen to 10'. Tolerant of shade. Suitable for hedges.
- YEW**, upright Japanese (*Taxus cuspidata*). Coniferous evergreen tree to 20'. With spreading branches. Dark green. Tolerant of shade. Suitable for hedges.
- YEW**, spreading English (*Taxus baccata* 'Repandens'). Coniferous evergreen. Low or dwarf. To 3'. Suitable for hedges.
- YEW**, spreading Japanese (*Taxus cuspidata* 'Expansa'). Coniferous evergreen to 15'. Tolerant of shade. Suitable for hedges. Wide spreading.
- YEW**, spreading dwarf Japanese (*Taxus cuspidata* 'Nana'). Coniferous evergreen. Low or dwarf. To 3'. Tolerant of shade. Suitable for hedges.

Plants Are Listed According to Height

Trees According To Height

Shrubs According To Height

15' TO 25'

Cherry, Kwanzan	Magnolia, saucer
Crab	Magnolia, star
Dogwood	Maple
Franklinia	Quince
Fringetree	Redbud
Golden-chain	Russian olive
Hardy-orange	Shadblow
Hawthorne	Snowbell
Viburnum, blackhaw	

25' FEET TO 50'

Arborvitae	Magnolia, southern
Birch, weeping	Magnolia, sweet
Cedar	bay
Cherry	Maple
Chestnut	Osage-orange
Cork	Pine
Elm, Chinese	Sassafras
Golden-rain	Silverbell
Hemlock, Carolina	Sourwood
Holly, American	Spruce, Colorado
Larch	Willow, weeping

OVER 50'

Ash	Magnolia, cucum-
Beech, American	ber
Birch, paper	Maple, Norway
Catalpa	Maple, red
Cedar	Maple, sugar
Cryptomeria	Oak
Cypress	Pine, Austrian
Elm, English	Sourwood
Ginkgo	Spruce, Norway
Hemlock, Cana-	Sweetgum
dian	Sycamore
Hickory, shagbark	Tree of Heaven
Honeylocust	Tulip-tree
Horschestnut	Walnut
Katsura	Zelkova

0' TO 3'

Azalea	Leucothoe
Barberry	Sarcococca
Cinque-foil	Snowberry
Cora.beary	Spirea, Anthony
Cotoneaster, rock	Waterer
Deutz.a	Sumac, fragrant
Porsythia, dwarf	Viburnum,
Holly, Helleri	cranberrybush
Hydrangea	Yew, spreading
	English

3' TO 6'

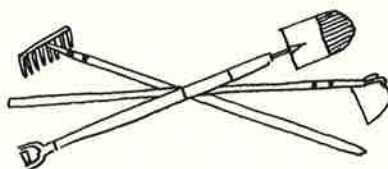
Abelia	Holly, Japanese
Acanthopanax	Jetbead
Andromeda	Juniper, Hetz
Azalea	Juniper, Pfitzer
Barberry	Kerr.a
Beauty-bush	Nandina
Box, dwarf	Rose
Butterfly-bush	Scotch broom
Camellia	Spirea
Crab, Sargent	Stranvaesia
Dogwood	Viburnum,
Euonymus	Burkwood
Firethorn	Weigela
Porsythia	

6' TO 10'

Althea	Privet
Bayberry	Osmanthus
Bcx. tree	Mock-orange
Butterfly-bush	Pearlbush
Chokeberry	Pine, Mug
Cotoneaster,	Quince
willowleaf	Rhododendron
Dogwood, silky	Snowbell
Eleagnus	Sweet-shrub
Euonymus, winged	Viburnum,
Porsythia	leatherleaf
Holly, Chinese	Viburnum, linden
Holly, Inkberry	Viburnum, nanny-
Honeysuckle	berry
Laurel	Yew, Hatfield
Lilac	

OVER 10'

Cherry, Cornelian	Smoke-tree
Crape-myrtle	Stewartia
Fringetree	Witch-hazel
Hardy-orange	Willow, pussy
Hydrangea	Viburnum,
Magnolia, star	blackhaw
Maple, amur	Viburnum, Siebold



Plants Native To Maryland

When Plants Bloom

TREES	
Ash, red	Magnolia,
Ash, white	sweet bay
Beech, American	Maple, box elder
Birch, river	Maple, red
Catalpa	Maple, silver
Cypress, bald	Maple, sugar
Dogwood, flowering	Oak, pin
Elm, American	Oak, red
Fringetree	Oak, scarlet
Gum, black	Oak, white
Hemlock, Canadian	Oak, willow
Hickory, pecan	Pine, Virginia
Hickory, shagbark	Pine, white
Holly, American	Redbud
Hornbeam, American	Sassafras
Hornbeam, hop	Shadblow
Kentucky Coffee	Sourwood
Linden, American	Sweetgum
Magnolia,	Sycamore
cucumber	Tulip-tree
	Walnut

SHRUBS	
Azalea	Viburnum,
Bayberry	blackhaw
Chokeberry, black	Viburnum,
Chokeberry, red	hairy-berry
Holly, inkberry	Viburnum,
Laurel, mountain	wayfarin-tree
Sumac	Willow, pussy
	Witch-hazel

FEBRUARY	
Witch-hazel,	Honeysuckle,
Chinese	winter
	Jasmine
MARCH	
Cherry, Cornelian	Forsythia
	Honeysuckle, winter
APRIL	
Andromeda	Dogwood
Azalea	Magnolia, saucer
Cherry	Quince
Crab	
MAY	
Azalea	Lilac
Beauty-bush	Pearlbush
Deutzia	Privet
Dogwood	Rose
Fringetree	Spiraea
Hawthorn	Viburnum
Kerria	Weigela

JUNE	
Azalea	Mock-orange
Hydrangea,	Spiraea (Anthony
snowhill	Waterer
Laurel	

JULY	
Abelia	Crape-myrtle
Althea	Smoke-tree
Butterfly-bush	St. Johnswort

Plants For City Conditions

TREES	
Ash, white	Linden
Catalpa	Locust, black
Cherry	Magnolia, saucer
Cork	Magnolia, southern
Crab	Magnolia, star
Dogwood	Maple, amur
Elm	Maple, box elder
Empress	Maple, hedge
Ginkgo	Maple, Norway
Golden-rain	Oak, red
Hawthorn,	Pagoda
Washington	Silk-tree
Honeylocust	Sycamore
Horsechestnut	Tree of Heaven
Kentucky Coffee	

SHRUBS	
Acanthopanax	Kerria
Althea	Lilac
Andromeda	Mock-orange
Azalea	Pyracantha
Barberry	Quince
Bittersweet	Rhododendron
Chokeberry	Snowberry
Deutzia	St. Johnswort
Eleagnus	Sumac
Forsythia	Viburnum
Holly	Witch-hazel
Hydrangea	Yew

TREES	
Ash, white—(bronze-purple)	
Dogwood, flowering—(red)	
Franklinia—(crimson)	
Fringetree—(yellow)	
Hawthorn, cocks-pur—(orange-red)	
Hawthorn, Wash.—(orange-red)	
Katsura—(yellow to scarlet)	
Maple, amur—(red)	
Maple, Japanese—(red)	
Maple, Norway—(yellow)	
Maple, red—(red)	
Maple, sugar—(red to yellow)	
Oak, red—(dark red)	
Oak, scarlet—(bright scarlet)	
Sassafras—(orange to red)	
Sweetgum—(crimson)	
Tulip-tree—(yellow)	

SHRUBS	
Azalea—(various)	
Barberry—(red)	
Cherry, cornelian—(dull red)	
Cotoneaster—(various)	
Euonymus, winged—(bright red)	
Spiraea, bridleweath—(scarlet to orange)	
Stewartia—(orange-red-purple)	
Viburnum—(various)	
Witch-hazel—(yellow)	

Plants That Attract Birds

TREES	
Arborvitae	Hawthorn
Ash	Hemlock
Cedar, red	Holly
Cherry, black	Maple
Crab	Pine
Dogwood	Redbud
Elm	Shadblow
Gum, black	Spruce

SHRUBS	
Box	Sumac
Butterfly-bush	Trumpet creeper
Cotoneaster	Viburnum
Firethorn	Virginia creeper
Juniper	Winterberry

Garden Soil Vital Factor For Growth

Soil is the structure on which plants exist. It is composed of five elements: the mineral particles of sand, gravel or clay; humus (organic matter), water, air and bacteria.

Garden soil gives support to plants, distributes and retains moisture and serves as a medium for bacteria which helps make nutrients available to plants.

Humus, the result of decayed vegetable or animal matter, is dark in color, spongy and has a large surface to hold water and nutrients. It serves as a buffer to poisonous minerals in the soil.

Plants feed from tiny root hairs. The root itself serves as a carrier for food and water.

Soil can be sandy or light, loamy (loose or crumbly when squeezed in the hand) or hard as clay.

Some plants do well in any soil. Others require specific conditions such as acid or alkaline. Soil tests, available free to Marylanders, determine what is best treatment for soils.

Most Maryland soils have a pH (measure of hydrogen concentration) value between 4.0 and 7.5 on a scale of 0 to 14 with 7.0 as neutral. Below 7.0 is acid or sour; above 7.0 is alkaline or sweet. For most plants in the Baltimore area the desired soil pH level is 6.0 or 6.5 or slightly acid.

Of major importance to soil is nitrogen, for fast growth, phosphorous for developing a root system and potash for winter hardiness and resistance to disease.

Calcium, magnesium and sulphur are next in importance. Such trace elements as copper, manganese, zinc, iron, boron and molybdenum are other factors involved in good plant health.

As rainwater passes downward through the soil, hydrogen from carbonic and other acids in the soil water displaces some calcium and magnesium from the soil particles. Calcium and magnesium are then removed from the soil in drainage water and the soil becomes more saturated with hydrogen. The more hydrogen the greater the soil acidity.

The use of lime corrects soil acidity. It improves availability of other plant foods, especially phosphorus, promotes bacterial activity and increases nitrogen and supplies calcium and magnesium as plant foods. Lime also increases the efficiency of fertilizers and manures.

Planting Trees, Shrubs

Most trees and shrubs can be planted any time of the year except when the ground is frozen.

Select a site for a tree or shrub taking into consideration its ultimate height and width. Plants balled and burlapped or grown in containers will do better than those bare-rooted. In transplanting trees the ball of earth should be 1 foot in diameter for each inch of trunk diameter. The depth of the ball should be two thirds its width.

Dig a \$10 hole for a \$5 plant. The hole should be 6 to 12 inches wider on all sides than the ball and 1 foot deeper. Fill bottom of hole with well rotted manure, peat moss, compost or an organic fertilizer mixed with good topsoil. Don't use a chemical fertilizer on newly planted trees.

Plant no deeper than the tree or shrub when grown in the nursery. Fill the sides halfway with soil, soak with water and complete the filling after water has been absorbed. Leave a collar around plant base to collect rain. A tree under 2 inches in diameter needs about 10 gallons of water when planted. Water once a week after planting at the same rate.

Mulching conserves moisture, reduces weed growth and adds nutrients. Trees should be supported by staking to keep them upright. Use a piece of rubber hose or burlap to prevent bark injury from guy wire.

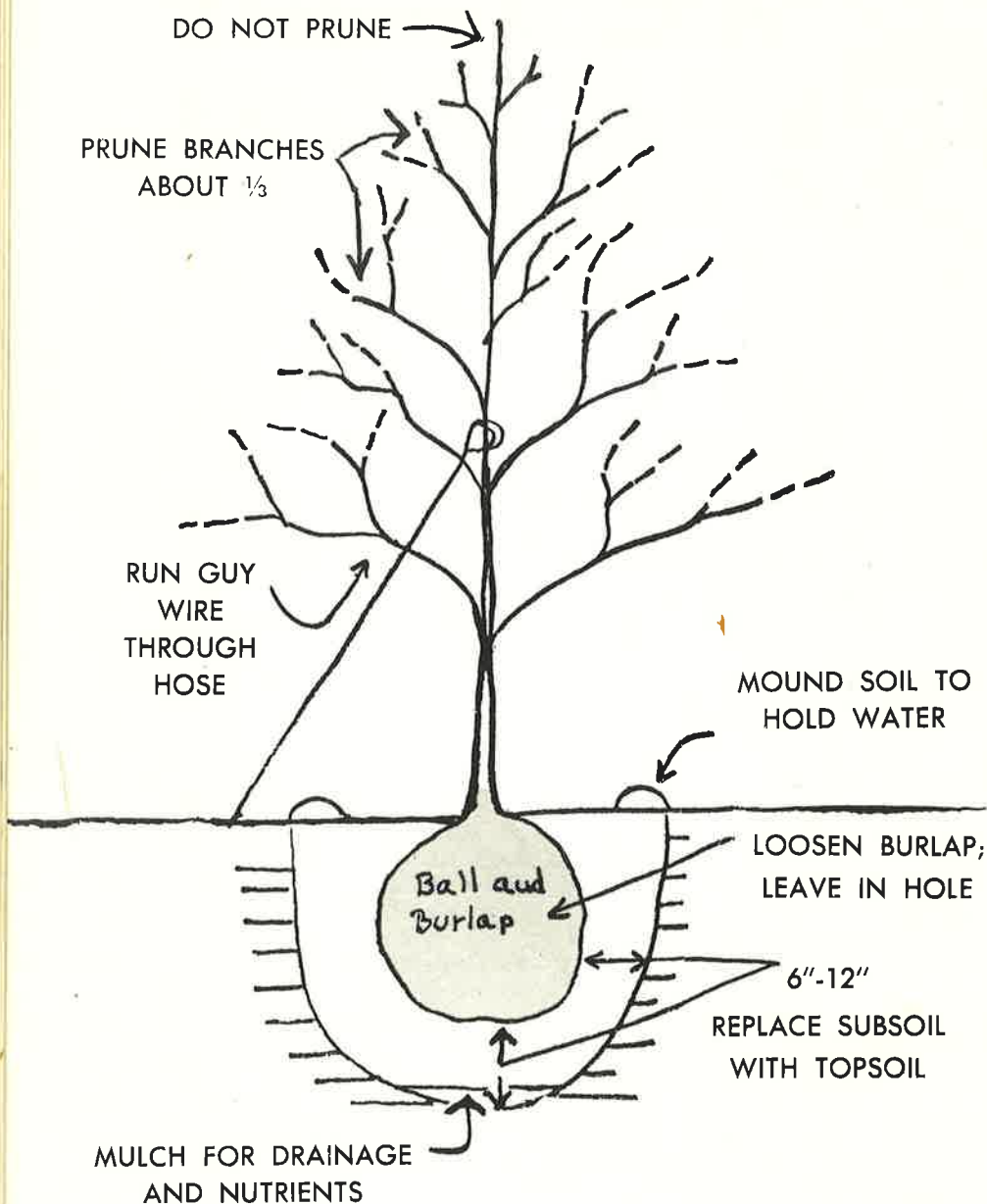
Trees are wrapped to retard evaporation of moisture from the bark, protection against the hot sun and wood borers from attacking the tree.

To compensate from reduced root system, prune large branches back one third their original length. Don't trim leader or top of tree.

Overfertilizing ornamental tree and shrubs will stimulate excessive growth. Well-established plants need a minimum of fertilizer. Mix fertilizer at the base of the plant by cultivating. Avoid cultivating shallow-rooted plants such as azaleas and rhododendrons, but apply fertilizer, if needed, adding a mulch of organic matter.

The best time of year to fertilize trees is late fall after the leaves have dropped or in early spring before growth begins. Fall fertilizing enables the food to penetrate the soil.

To determine if a tree or shrub needs fertilizing look for these signs: undersized leaves, yellow or chlorotic leaves, thin or sparse foliage, tips of branches dying back, crown full of dead branches, short annual twig growth. Select a complete fertilizer and follow recommendations on the package.



Ground Covers Used Instead Of Grass

Ground covers are used in areas where grass is neither possible nor practical to grow because of topography, shade or other conditions.

Vines are used for ornamental purposes or for screening. Some climb, others cling or twine. Some vines and ground covers require trimming because of their rapid growth. Others grow slowly, requiring little if any maintenance.

Besides the ability to grow under adverse conditions, many ground covers grow rapidly, are not seriously injured when walked on, can tolerate a wide range of soil and moisture conditions and are usually free of insects and diseases.

GROUND COVERS

ALYSSUM, sweet (*Lobularia maritima*). Annual. Spreading habit of growth 6 to 8". Flowers white to violet all summer. Full sun.

BEARBERRY (*Arctostaphylos uva-ursi*). Broadleaf evergreen. Prostrate and creeping, 4 to 6" tall. Flowers white or pink, not showy. Dark green foliage. Sun or partial shade. Propagated by cuttings. Requires well-drained soil.

BUGLE WEED (*Ajuga reptans*). Perennial. Prostrate or creeping. Spreads by stolons. Blue or purple flowers in April or May. 4 to 8". Sun or shade. Will thrive under trees where others will not. May crowd out other plants.

CROWN VETCH (*Coronilla varia*). Perennial, spreading, to 24". Pinkish-white flowers from June to frost. Full sun. Deep root system. Excellent for roadside planting in rough areas. Propagated by seed or division. Grows in any soil. Resistant to insects, disease and fire. Excellent for soil erosion control.

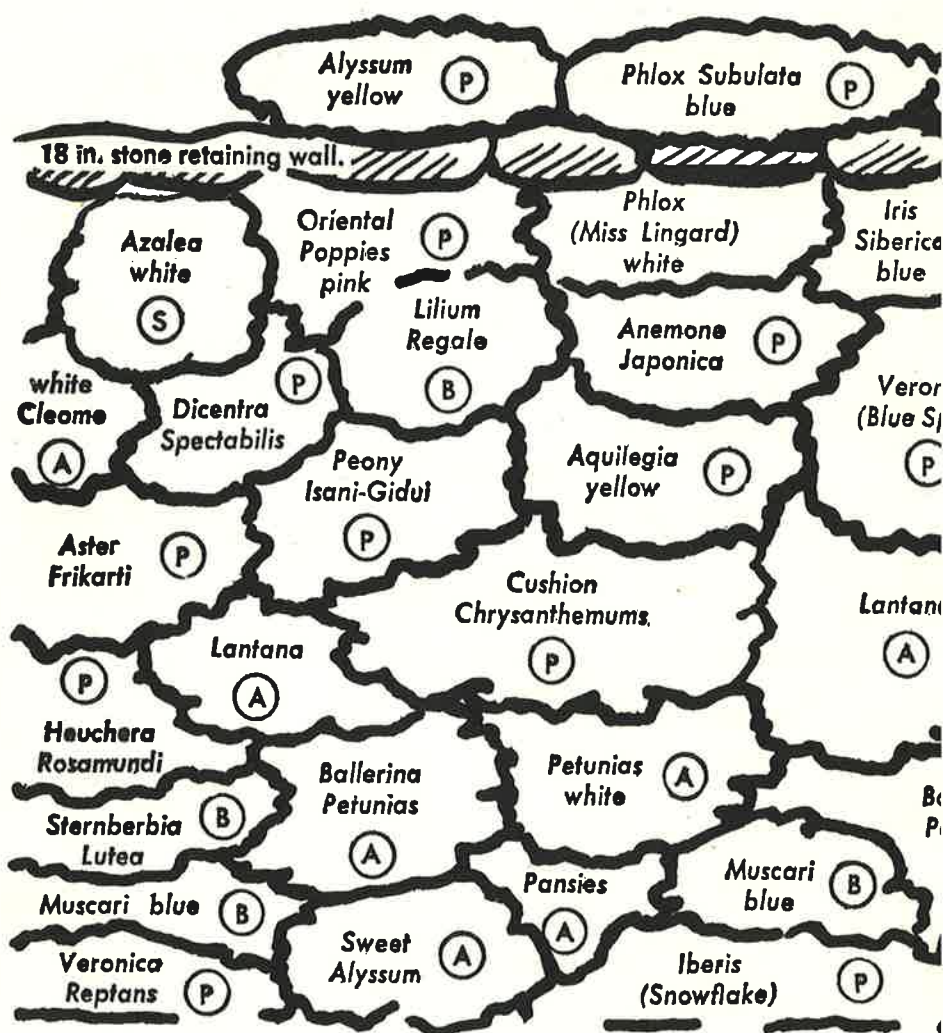
CYPRESS SPURGE (*Euphorbia cyparissias*). Perennial, spreading, 8 to 10" tall. Yellow flowers in June. Full sun. Spreads rapidly. May become a weed pest. Useful on banks or rough dry areas.

GERANIUM, ivy-leaf (*Pelargonium peltatum*). Annual. Creeping, 8" tall. Flowers white to rose. Full sun or partial shade. Not winter hardy in Maryland. Propagated by cuttings taken during the winter from plants growing indoors.

GERANIUM, strawberry (*Saxifraga sarmentosa*). Perennial. Creeping, spreading by runners, 6" with flower stems 12 to 15". White flowers. Shade. Propagated by runners. Hardy in milder sections of the State. Useful at base of larger plants.

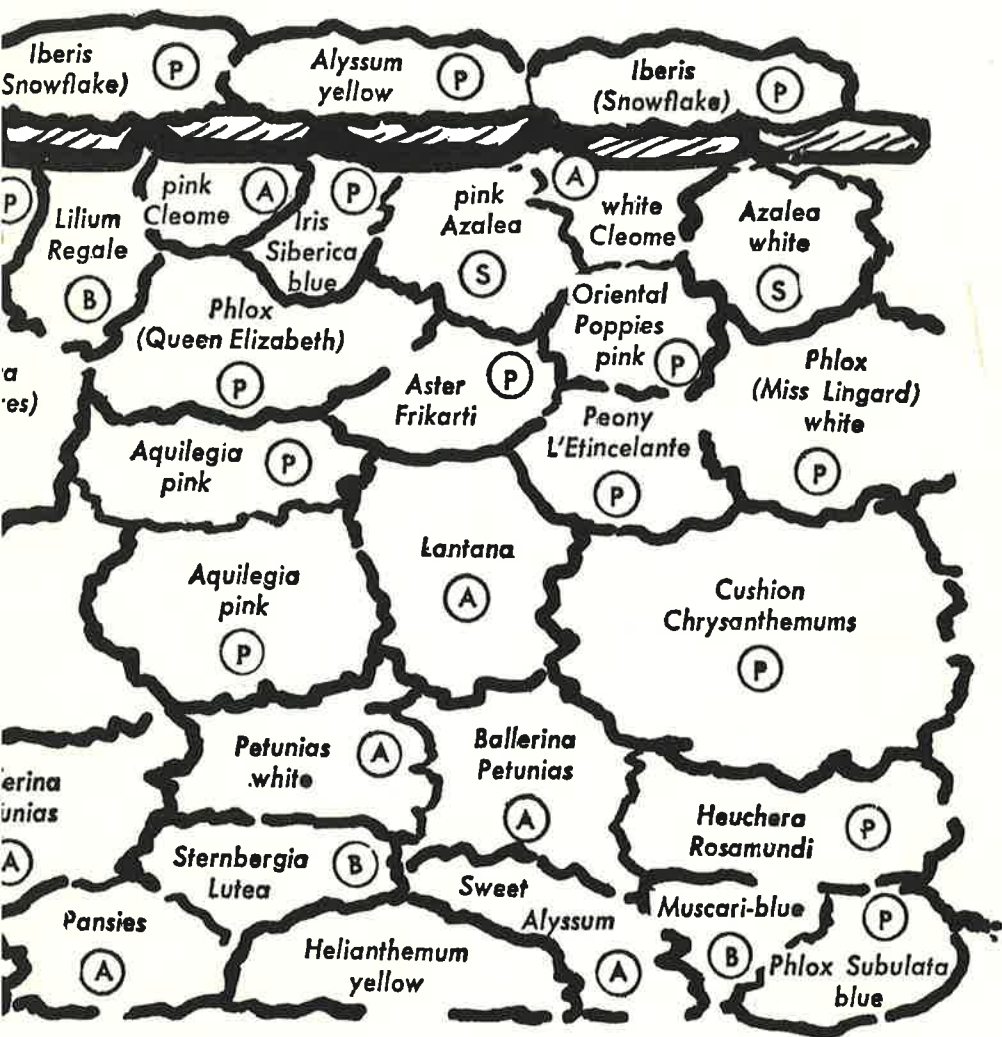
GOUTWEED (*Aegopodium podagraria*). Perennial. Spreading by creeping rootstock, 6 to 8" tall. Variegated leaf type most commonly used. Sun or shade.

PUT RIGHT PLAN



Perennials, annuals and shrubs, well-planned for a succession of bloom, offer variety of color in this typical garden section, about 18 by 6 feet in size. Each section, or drift,

T IN RIGHT PLACE



represents from three to five plants or bulbs in appropriate quantities. Symbols: A—Annuals; P—Perennials; B—Bulbs; S—Shrubs.

HEATH (*Erica carnea*). Broadleaf evergreen. Upright or spreading shrub, 8 to 15" tall. Flowers white, pink or lavender. Small needle-like foliage. Sun. Propagated by cuttings. Grow in loose, well-drained soil. Flowers in late winter or early spring. Prune out old shoots in spring after flowering.

HEATHER (*Calluna vulgaris*). Broadleaf evergreen. Upright, shrubby. 8 to 15" tall. Flowers in summer. Foliage small, needle-like or scale-like. Grown in sun. Propagated by cuttings. Prune in the spring, removing oldest wood. Slightly acid soil well-supplied with organic matter.

IVY, English (*Hedera helix*). See vine list.

JAPANESE SPURGE (see *Pachysandra*).

JASMINE, winter (*Jasminum nudiflorum*). Deciduous to 3'. Slender green, willowy branches. One of the earliest to bloom (February) when in protected position. Sun or partial shade. Good for training or cascading over wall or bank.

JUNIPERS (*Juniperus*). Several varieties used for ground covers including horizontalis "Plumosa" and "Douglasi"; conferta and chinensis "Sargentii." Spreading forms, 8 to 20". Propagated by cuttings. Full sun. Will stand dry soils.

KUDZU VINE (*Pueraria thunbergiana*). Rapid growing vine. Flowers violet-purple but rarely blooming in Maryland. Foliage coarse, bean-like. Propagated by cuttings or seed. Full sun. Useful to cover large areas rapidly for erosion control. Keep away from trees or shrubs as it will climb into them and cover tops. In Maryland the tops are deciduous and kill back to the soil each fall.

LEADWORT (*Ceratostigma plumbaginoides*). Perennial. Spreading, 6 to 12" tall. Blue flowers in August and September. Full sun or partial shade. Leaves appear in late spring.

LILY OF THE VALLEY (*Convallaria majalis*). Spreading by underground rootstocks. 6 to 8" tall. White flowers. Shade or partial shade. Propagated by division. Tops deciduous.

MOSS PINK (*Phlox subulata*). Creeping perennial. 4 to 6" tall. White, pink or red flowers in April. Full sun. Propagated by division. Grows in well-drained soil, not wet areas. Needs replanting every 3-4 years as it becomes straggly.

MOSS-ROSE (*Portulaca grandiflora*). Annual. Spreading, 8 to 12" tall. Flowers white, yellow, pink, rose, both single and double. Full sun. Prefers loose, open, well-drained soil.

NASTURTIUM (*Tropaeolum majus*). Annual. Both bush and creeping types. 8 to 12" with flowers of various colors. Full sun or light shade. Sow where plants are to flower.

PACHISTIMA (*Pachistima canbyi*). Spreading woody plant, 8 to 12" tall. Foliage small, dark green. Sun or shade. Propagated by cuttings. Grows rapidly in fertile acid soil. (Not readily available).

PACHYSANDRA, Japanese spurge (*Pachysandra terminalis*). Spreading, 6 to 8" tall. Evergreen leaves, dark and glossy. Shade. Propagated by cuttings. Excellent as companion plant with evergreens.

PERIWINKLE or **MYRTLE** (*Vinca minor*). Creeping, 6 to 8" tall. Dark evergreen foliage. Flowers blue, violet or white. Partial shade or full shade. Grows less vigorously in sun. Propagated by division or cuttings. Grows best in fertile soil. One of the best ground covers.

ROCKSPRAY (*Cotoneaster horizontalis*). See shrub list.

SARCOCOCCA (*Sarcococca hookeriana* 'Humilis'). Evergreen 1 to 2' shrubby form. Flowers white, small, not showy, fragrant. Foliage glossy. Will grow in light to heavy shade. Propagated by cuttings. Pruned in early spring to keep low compact growth.

SEDUM or STONECROP (*Sedum*). Several species used in dry, sunny areas. Grows only several inches tall and generally flowers. Easily propagated by division or cuttings. Species suitable for ground covers include golden moss, *Sedum acre*, *sarmentosum*, *sexangulare*, *reflexum*.

ST. JOHNSWORT (*Hypericum calycinum*). See shrub list.

YEW (*Taxus*). Evergreen. Spreading forms adaptable in partial shade or sun, including *baccata* 'Repandens,' the spreading English yew and the dwarf Japanese, *cuspidata* 'Nana'. Plants grow to 18" tall. Propagated by cuttings.

VERBENA (*Verbena hortensis*). Trailing 6 to 12" depending on variety. Flowers white, pink, rose, lavender, purple. Full sun. A perennial, but grown as an annual. Not winter hardy. Propagated by seed started indoors or by cuttings.

VIOLETS (*Viola*). Perennial. Many native species. Excellent for ground covers. Moist, shady areas under large trees where they can spread. Very hardy. Will self-sow.

WINTERCREEPER (*Euonymus fortunei*). Broadleaf evergreen. Spreading or trailing. 10 to 15" tall. Foliage heavy, dark green. Partial shade or sun. Propagated by cuttings. Several varieties. Useful on slopes and banks. Holds leaves through most of the winter. Will climb on trees or walls clinging by aerial rootlets. Subject to scale.

VINES

ACTINIDIA, Bower (*Actinidia arguta*). Deciduous. White flower. Rare. Handsome foliage.

AKEBIA, five-leaf (*Akebia quinata*). Deciduous slender vine with delicate foliage made up of five-parted leaves. Purple rosy flowers. Low growing. Excellent for trellis or for covering low wall. Sun or shade. Needs thinning. May become a pest.

BITTERSWEET, Oriental (*Celastrus orbiculatus*). Deciduous. More vigorous than native plant. Bright orange and scarlet fruit on female plants. 20 to 40'. Sun or shade. Use on fences, arbors and rocks.

CLEMATIS, anemone (*Clematis montana*). Deciduous. 10 to 15'. Full sun or light shade. Vigorous. White-turning-pink flowers in May. Variety: 'Rubens'; pink anemone.

CLEMATIS, golden (*Clematis tangutica*). Deciduous. Gold flowers. Rare.

CLEMATIS, hybrids (*Clematis lanuginosa*). Many varieties with large showy flowers. Red, purple, white.

CLEMATIS, Jackman (*Clematis jackmanii*). Deciduous. Violet flowers.

CLEMATIS, sweet autumn (*Clematis paniculata*). Deciduous. One of the most vigorous and fast growing. White fragrant flowers in August and September followed by a profusion of feathery, twisted seed pods. 10 to 20'. Sun or light shade. Arbors, trellises, stone walls.

CLEMATIS, virginibower (*Clematis virginiana*). Deciduous. Late summer. White and feathery flower. Native.

HONEYSUCKLE, trumpet or coral (*Lonicera sempervirens*). Handsome twining vine with orange to scarlet trumpet-shaped flowers appearing during the summer. Subject to plant lice.

HYDRANGEA, climbing (*Hydrangea petiolaris*). Handsome deciduous vine. Hardy and vigorous. 15 to 20'. Sun or partial shade. Clings to stone, masonry and tree trunks. Heart-shaped leaves. Creamy flowers in June.

IVY, Boston (*Parthenocissus tricuspidata*). Deciduous showy. One of the strongest and fast growing of vines. Large leaves with long petioles. Clings to nearly all surfaces. Dense pattern. Leaves red-bronze in fall. Good for city conditions.

IVY, English (*Hedera helix*). Broadleaf clinging evergreen vine. Handsome dark green foliage somewhat glossy. Does best on north or east wall. Susceptible to sunburn if given southern exposure. (Var. *baltica*—smaller leaves, slower growing.) Leaves on flowering branches of different shape. Both ivy vines also good for ground cover.

PORCELAIN BERRY (*Ampelopsis brevipedunculata*). Deciduous, hardy, rampant growth. Lavender and violet flowers. Clusters of turquoise-blue, lavender and violet berries. 20'. Full sun or shade. Thrives in any good soil. Use on trellis or arbor.

ROSES, climbing or rambler varieties (*Rosa*). Many varieties ranging in height from 8 to 25' depending on heredity and growing conditions. Need to be tied for support.

SILVER LACE (*Polygonum auberti*). Handsome, vigorous, twining. Dense, light green foliage. Small greenish-white flower clusters appear in large numbers late in summer when few woody plants are in bloom. Fruits not effective.

TRUMPET CREEPER, common (*Campsis radicans*). Deciduous climbing. 20 to 40'. Orange and scarlet tubular blossoms in terminal clusters in summer. Dense foliage. Sun. Requires no attention.

VIRGINIA CREEPER (*Parthenocissus quinquefolia*). Deciduous clinging vine to 30'. Native climber. Bright crimson in fall. Useful foliage plant. Grows well in sun or shade.

WISTERIA, Chinese (*Wisteria sinensis*). Deciduous. Requires pruning annually. Grows rapidly to 40' Full sun or partial shade. Violet, white or pink flowers in May.

WISTERIA, Japanese (*Wisteria floribunda*). Deciduous. Blooms later than *sinensis*. Violet, pink or white flowers in clusters which can reach 3 feet in length.

Annuals Add Color To Flower Garden

Annuals are those plants which last only one season. They bring color to flower gardens, fill in spaces between perennials or left empty following early spring bulbs, can be planted for succession of bloom all summer and are used for cut flowers for the home.

Annuals should be selected carefully for size and color to keep in harmony not only with other flowers in the garden but in relation to the house and surroundings.

Most annuals can be grown from seed, sown indoors in March or later outdoors in flower beds. Some seed themselves. Most annuals prefer sun. A few will grow under any conditions.

LOW

Ageratum	Nasturtium
Balsam	Pansy
Browallia	Phlox
Calendula	Rose Moss
Candytuft	Salvia
Celosia	Snapdragon
Coleus	Stock
Dianthus	Verbena
Lobelia	Vinca
Marigold	Zinnia

MEDIUM

Bachelor's Button	Petunia
Balsam	Salpiglossis
Carnation	Scarlet Sage
China Aster	Snapdragon
Cockscomb	Strawflower
Gaillardia	Verbena
Larkspur	Zinnia
Nicotiana	

TALL

Amaranthus	Scabiosa
China Aster	Scarlet Sage
Cockscomb	Snapdragon
Cosmos	Spider Flower
Four O'Clock	Sunflower
Larkspur	Zinnia
Marigold	

Annuals

For Spreading

Forget-me-not	Sweet Pea
Nasturtium	Verbena
Rose Moss	Vinca

For Bedding

Coleus	Phlox
Marigold	Salvia
Nicotiana	Scilla
Petunia	Zinnia

For Edging

Ageratum	Sweet Alyssum
Coleus	Verbena
Marigold	Vinca
Pansy	Zinnia
Phlox	

For Rock Gardens

Ageratum	Snapdragon
Globe Amaranth	Sweet Alyssum
Marigold	Vinca

Annuals For Poor Soil

Balsam	Nasturtium
Cockscomb	Petunia
Four O'Clock	Spider flower
Gaillardia	Sweet Alyssum

For Shady Places

Balsam	Nicotiana
Cockscomb	Pansy
Coleus	Stock
Impatiens	Vinca
Lobelia	

For Fragrance

Ageratum	Snapdragon
Candytuft	Stock
Nicotiana	Sweet Alyssum
Petunia	Verbena
Scabiosa	

For Fall Sowing

Baby's breath	Pansy
Bachelor's Button	Poppy
Candytuft	Sweet Alyssum
Cosmos	Sweet Pea
Larkspur	

AGERATUM, flossflower (*Ageratum houstonianum*). Tender, profusely blooming with fluffy flowers in lavender, blue, white, pink. From dwarf and compact types to 18 inches in height. Excellent for borders, edging, rock gardens, small beds or potting indoors. Sun or shade. Blooms July to October. New varieties: Midget Blue, Fairy Pink, Blue Ball, Dwarf Pink, Pink Heather.

ALYSSUM, SWEET (*Lobularia maritima*). Popular, hardy edging plant, easily grown, free-flowering, white, pink, rose or violet, for borders, beds, rock gardens, pots, window boxes. Four to 8 inches. Blooms May to October. Sun or shade. New varieties: Carpet of Snow, Violet Queen, Royal Carpet.

AMARANTHUS, coarse plant with colorful foliage. For dry, sunny spots with poor soil. Flowers in headlike clusters. Joseph's Coat is low with cream, green, red foliage. Molten Fire is tall with red foliage. Good for bedding and background.

ASTER, CHINA (*Callistephus chinensis*). Erect, branching plant, 18 to 36 inches. Prefers sun, but tolerates light shade, fairly fertile soil. Shallow-rooted. Select wilt-resistant varieties. Wide variety of forms and colors. Good for cutting, bedding, borders. Blooms mid to late summer depending on varieties. New varieties: Queen of Market, Giant Branching, Royal or Princess classes, Pompon, Powderpuff.

BABY'S BREATH (*Gypsophila elegans*). Annual which generally has fewer but more showy flowers than perennial types. White and rose, delicate pinky white. Sun, average soil with calcium. Sow seed in fall.

BACHELOR'S BUTTON, cornflower (*Centaurea cyanus*). Fast growing in sun, part shade, any soil, dry spells. To 30 inches. Hardy. Blue, pale pink, deep red, white. Blooms early to mid-summer. Likes frequent pinching of faded blooms. Sow seed outdoors in fall. New varieties: Pinkie, Blue Boy, Snowman, Red Boy, Jubilee Gem.

BALSAM, GARDEN (*Impatiens balsamina*) Upright tender plant. Eight to 30 inches. Part shade, moist or dry soil. Pinch faded blooms. Self-seeding. Mass of flowers all summer. White salmon, apricot, cerise, pink, rose, purplish red. Double types to 2 feet. Dwarf varieties.

BROWALLIA (*Speciosa*). Half-hardy plant, tolerant of poor soil, suitable for rock gardens. Compact, dark green, glossy leaves. Blue, violet, white flowers. Ten to 18 inches. Blooms all summer. Sun. Sow seeds indoors in April or outdoors in May. For indoor winter plants sow seeds in late summer. Good for cutting, pots and as annual vine.

CALENDULA, pot marigold (*Calendula officinalis*). Hardy to 2 feet with 3-inch flowers in buff, cream, primrose, lemon, gold or orange. Sun, part shade. Flowers best when nights are cool. Popular as greenhouse plant and for cutting. Excellent for front of garden. New varieties: Lemon Queen, Orange King, Pacific Beauty, Apricot Beauty.

CANDYTUFT (*Iberis umbellata*). Free-flowering European annual. Good for ground cover or edging in borders. Small flowers in red, white, pink, lilac in clusters. Six to 9 inches. Blooms June to frost if planted in succession. Prefers cool spots. (Compare perennial candytuft [*Iberis sempervirens*], 8 to 10 inches, with white flowers.)

CARNATION, (see Pinks).

CELOSIA, (see Cockscomb).

CHINA ASTER, (see Aster).

CLEOME, spider flower (*Cleome spinosa*). Tall tender annual. To 4 feet. White, salmon pink, pink. Sun, average dry soil. Showy terminal of irregular flowers on long stalks. Odiferous. Remove seedheads to encourage heavy blooming. New varieties: Pink Queen, Helen Campbell.

COCKSCOMB, (*Celosia*). Many tiny flowers on odd-shaped clusters, crested or flattened, in spikes or plumes, mostly in yellow, orange, crimson, violet, red. Dwarf to tall (36 inches). Bloom mid-summer to frost. Easy to grow in sun. Prefers rich, moist soil. New varieties: Cristata, Royal Velvet, Empress, Toreador, Plumosa, Golden Fleece. Gilberts varieties as Maple Gold, Flaming Fire, Forest Fire, Gold Dust, Green Gold. Excellent for use in dried arrangements.

COLEUS, (*Coleus blumei*). Grown for its multi-colored and varied foliage as a summer bedding plant. Not frost hardy. Blooms July and August, full sun, rich loam. Sow seeds in February or early March. Pinch negligible flower clusters. For winter pot plants take cuttings in September or bring plant indoors before frost. Cutting can be started easily in water.

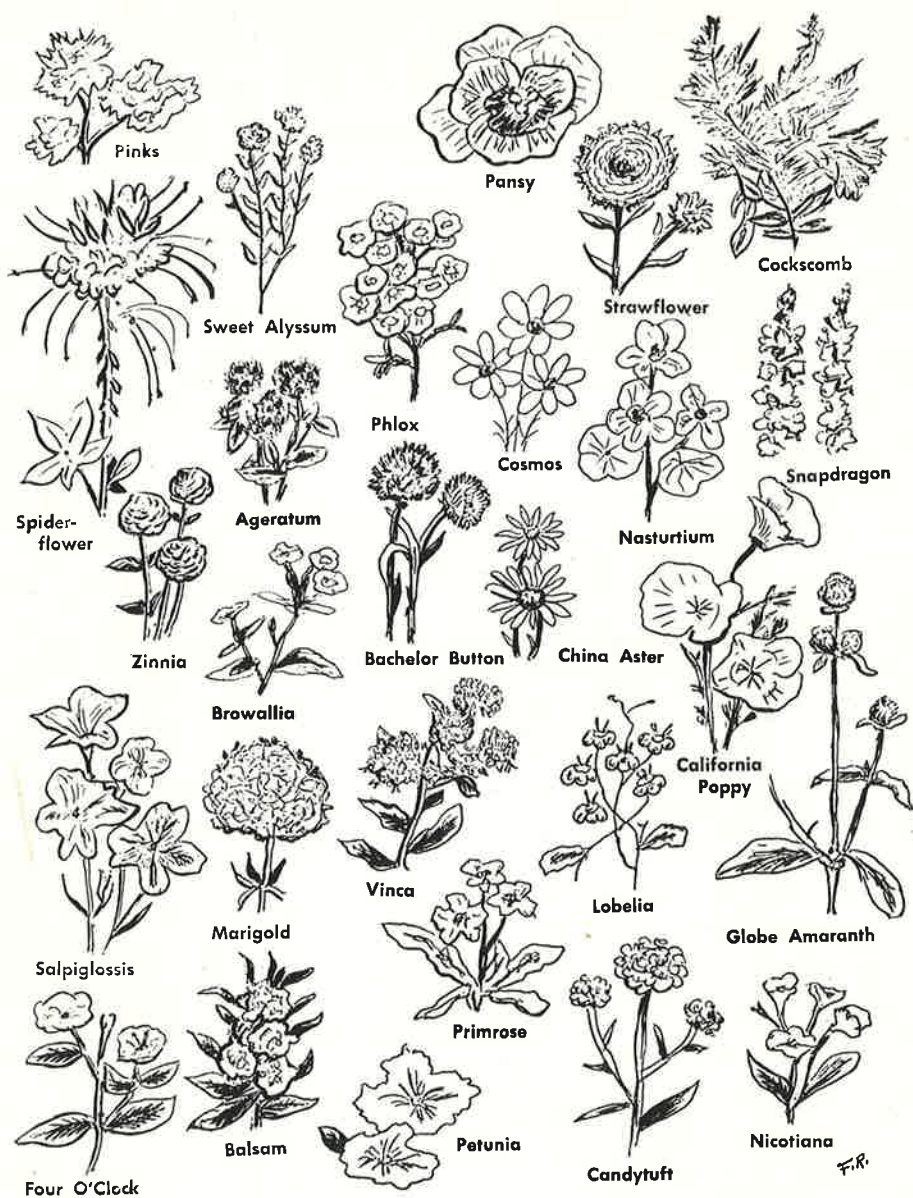
CORNFLOWER, (see Bachelor's Button).

COSMOS, a weak-stemmed annual from Mexico, to 5 feet. *Cosmos Bipinnatus*, 36 to 60 inches, rose, pink and white, hardy, sun. *Cosmos Sulpnureus*, 36-48 inches, yellow, orange, half-hardy, sun. Profuse bloomer from July to frost. New varieties: White, Pink, Dazzler, Radiance, Orange Flare, Fiesta.

DAHLIA, (summer). Flowers from July until frost. Requires full sun, fertile well-drained loam. Eighteen to 24 inches. Single flowers and semi-double in all colors but blue. Seeds may be started indoors in February or March. New varieties: Unwin Dwarf Hybrids, Coltness Single Hybrids.

DIANTHUS, (see Pinks).

FLOWERING TOBACCO, (see *Nicotiana*).



- FORGET-ME-NOT**, (*Myosotis sylvatica*). A low annual blooming from May to August. Charming as ground cover under tulips or with spring-blooming perennials. Three to 8 inches. Blue. Full sun or partial shade, rich soil. Self-sowing. Best treated as a biennial.
- FOUR O'CLOCK**, (*Mirabilis*). Frost tender plant, tolerates drought and poor soil. Flowers from July to frost. To 3 feet. Tubular flowers in red, yellow, white. May be treated as perennial by storing tuberous roots over the winter. Flowers in late afternoon. Sow seeds outdoors in May.
- GAILLARDIA**, (*Pulchella*). Hardy to 2 feet. Sun. Blooms from June to October. Yellow, orange, maroon flowers. Good for cuttings. Also called annual Blanket-flower.
- GLOBE AMARANTH**, (*Gomphrena globosa*). Tender hardy annual, 18 to 24 inches. Full sun. Use for cuttings, bedding and making winter bouquets when dried. Clover-like flowerheads: white, purple, rose, orange. Tolerates heat and drought. Sow seeds indoors in March. New variety: Rubra.
- IMPATIENS**, (*Impatiens sultani*). Low (to 15 inches), annual for shade. Orange-red, white flower with begonia-like leaves. Sow seed outdoors in April. Can bloom from June beyond frost. Seeds itself.
- LARKSPUR**, (*Delphinium ajacis*). Greater range of color than perennial species. Single or double flowers in sky-blue, dark blue, purple, blue-reds, pink salmon, rose white. To 4 feet on erect spikes. Full sun, good to rich soil. Sow seeds early indoors in spring or outdoors in late fall. Likes lime soil. Grows where perennial delphiniums fail. Imperial strain recommended.
- LOBELIA**, edging (*Lobelia erinus*). South African annual, 4 to 10 inches. Sun, partial shade. Excellent for edging, combination potting. Blue and white. Blooms all summer. Hardy. New varieties: Cambridge Blue, Crystal Palace, Mrs. Clibran Improved.
- MARIGOLD**, (*Tagetes*). One of the most popular annuals requiring sun, any good soil. Needs watering. French and African types native to southwest America and Mexico. Dwarfs are early to late summer bloomers; larger bloom from midsummer to frost. Mostly in shades of yellow and orange-red. Wide selection.
- MORNING GLORY**, (*Ipomoea purpurea*). Behaves like a tender perennial twining vine in tropical climates. Vigorous, fast-growing. Stems twine around supports. Blue, purple or pink tubular flowers, 2 to 3 inches long. Sow outdoors in early May. Sandy, but not rich soil. Tolerates dry weather. Bush variety grows 1 foot tall, suitable for rock garden, mixed border or window box. New varieties: Heavenly Blue, Scarlet O'Hara, Pearly Gates.
- NASTURTIUM**, (*Tropaeolum*). Fast-growing Peruvian annual, either dwarf and bushy or tall and climbing. Irregular, spurred flowers, fragrant. Dwarf, 15-30 inches; tall, up to 8 feet. Requires sun, sandy soil. Both double and single flowers. Yellow, orange, red, pink. Leaves and buds used in seasoning. Pungent odor. Sow indoors in April. New varieties: Golden Gleam, Mahogany, Cherry Rose.
- NICOTIANA**, flowering tobacco (*Nicotiana glauca*). Night-fragrant. Three to 4 feet tall, usually grown as an annual. Self-sowing. Sun, partial shade. Sturdy, withstands drought. White, purple. New varieties: Affinis, Crimson Bedder.

PANSY, (*Viola tricolor*). Popular annual bedding plant from Europe. Best treated as biennial. Sprawling habit. Heart-shaped leaves with flat, velvety leaves. Many colors and combinations. Over 50 varieties. Blooms in early spring. Sun or partial shade, moist, fertile soil. Seeds may be sown indoors in January. Transfer seedlings to coldframe or cool greenhouse, or mulch outdoors with light salt hay (no manure). Not easy to grow from seed for amateur. New varieties: Alpenglow, Berna, Rhinegold, Coronation Gold, Thunersee, Raspberry Rose, Mapleleaf Giants Mixed, Oregon Giants.

PETUNIA, (*Petunia*). Popular summer bedding plant derived from crossing two native species from Argentina. Funnel-shaped flowers. Three types: erect forms for bedding; sprawling or weak-stemmed types for window boxes and dwarf types for bedding and edging. All colors and combinations except pure yellow. Ten to 18 inches. Half hardy. Sun, partial shade. Blooms all summer. Many new varieties—dwarf, double, large flowered.

PERIWINKLE, Madagascar (see *Vinca rosea*).

PHLOX, annual (*Phlox drummondii*). Easy to grow. Six to 20 inches. All colors except yellow, many variegated. Fragrant. Native to Southwestern United States. Requires full sun, fertile soil. Will tolerate partial shade and drought. Sow seed outdoors in May. Plan for successive plantings. Use in window boxes, rock gardens, cuttings, edging, bedding and borders. Attacked by mildew and fungi causing leaf spots. New varieties: Tetra Red, Glamour.

PINKS, (*Dianthus*). Considered biennial or perennial south of Washington. Twelve to 18 inches. Many colors: Rose, pink predominating. Evergreen foliage. Winter hardy. Thrive best in cool, temperature areas. Usually grows as tufts or mats with flowers in small clusters. Carnation (*Dianthus caryophyllus*), similar to florist's carnation but treated as an annual. Try Heddensis varieties, Westwood Beauty, Locinatus.

POPPY, California (*Eschscholtzia californica*). Named after a Russian ship surgeon who found it growing on West Coast over 100 years ago. Some varieties are perennial. Up to 18 inches. June, July and August. Sun, partial shade. Variety of colors.

PORTULACA, (see Rose Moss).

ROSE MOSS, (*Portulaca grandiflora*). Popular Brazilian annual, prized for its ease of culture and profusion of bloom. Flowers open only in sunlight. Prostrate plant with thickish, spoon-shaped leaves, showy terminal flowers. Red, pink, white, yellow, salmon. Four to six inches. Tender. Use in edging, rock gardens and as ground cover. Can be used in window boxes. Self-sowing.

SALPIGLOSSIS, painted tongue (*Salpiglossis sinuata*). A Chilean long-season annual, grown for its varicolored, petunia-like, almost symmetrical, funnel-shaped flowers. Yellow, violet, lavender, crimson, white. Sun. Any soil. To 30 inches. Tender. Sun, partial shade. Cuttings. May not do too well in Maryland because of the heat.

SCABIOSA, pincushion flower (*Scabiosa atropurpurea*). Tall, long-season annual from Europe simulating the Aster family. Twenty-four to 35 inches. Good for cuttings. White, lavender, pink, maroon, rose. Blooms July to October. Try Blue Moon.

SCARLET SAGE, (*Salvia splendens*). Tall, Brazilian scarlet annual with light green stalks and showy terminal flowers in clusters. Ten to 24 inches. Sun. Tender. Blooms August to October. New varieties: Bonfire, America, St. Johns Fire.

SNAPDRAGON, (*Antirrhinum*). Tall, to 36 inches, usually perennial with large florets on upright spikes. Blooms mid-summer to frost. Excellent for cut flowers and bedding. Sow tiny seeds indoors in March in well-drained, sterile soil low in fertilizer to avoid burning roots. Seedlings require uniform moisture. Pinch plants for bushiness. Select rust-proof varieties. Sun or partial shade. New varieties: Alaska, Apple Blossom, Loveliness, Rosalie, Snowwhite, Tetra varieties.

SPIDER FLOWER, (see *Cleome*).

STOCK, (*Mathiola hybrids*). Half-hardy. Fragrant, multi-colored flowers in terminal clusters, 10 to 30 inches. Rose, purple, white. Sow seeds indoors in April. Full sun, requires temperatures below 65 degrees for bud formation. Ten-Weeks variety has faintly fragrant flowers on spikes and is not winter-hardy. Night-Scented variety is fragrant bushy herb, 3 to 9 inches, with scattered flowers. May not do too well in Maryland because of the heat.

STRAWFLOWER, (*Helichrysum*). Tender annual grown for dried bouquets. Two to 3 feet tall, solitary flowers, 2 inches across. White, yellow, orange. Sow seeds indoors in March or outdoors in May in full sun. For winter decoration cut flowers in bud stage or at opening. Tie in small bunches, hang head down in well-ventilated place until dry.

SUMMER-CYPRESS, (*Kochia trichophylla*), also called Firebush and Burningbush. Half-hardy annual, 3 feet, shrub-like with narrow leaves resembling evergreen needles. In autumn, foliage and branches turn red. Start seeds indoors in March or outdoors in May. Set plants 2 feet apart in full sun. Fast growing, therefore effective as a temporary hedge. More noted for foliage than flowers.

SUNFLOWER, (*Helianthus*). Erect, coarse, frost-tender, easily cultivated, useful for background planting, screening, bird food. May reach 12 feet. Sow seed in full sun after danger of frost is over. Plate-like yellow flower. Dwarf variety Sun Gold has double flowers, 15 inches tall.

SWEET ALYSSUM, (see *Alyssum*).

SWEET PEA, (*Lathyrus*). Delicate fragrance and flowers. Frost hardy. Grows as vine up to 6 feet but bush forms available. Prefers cool, moist weather. Sow in early spring in deep, fertile, well-drained soil, or, sow in October in coldframe. Difficult to grow from seed. Subject to many diseases and pests. May not do too well in area because of the heat.

VERBENA, garden (*Verbena hortensis*). A fragrant garden perennial from South America, grown mostly as an annual since it blooms from the seed the first year, if started early indoors. Weak, sprawling plant. Elight to 18 inches. Blooms July to October in sun or partial shade. Cuttings, pots. Soft foliage. All colors except blue and yellow. Mat forming. Start seeds indoors in March. Transplants easily in May. Tolerates drought. Good for borders, rock gardens, cuttings.

VINCA, (*Rosea*), or Madagascar periwinkle. Related to trailing myrtle (*Vinca minor*). Requires full sun. Tolerates dry or wet conditions. Eighteen inches. Rose, white. Five-petal flowers. Glossy foliage. Suitable for porch, window box, borders or bedding where solid mass or low medium height in foliage is needed. Can be used as ground cover with tall perennials.

ZINNIA, common (*Zinnia elegans*). Most satisfactory of the annuals. Fifteen to 36 inches. All colors except blue. Long blooming season from July to October. Start seed indoors in March, outdoors in May. Easy to grow, tolerates heat and drought. Seeds germinate in 5 to 6 days in warm, moist soil. Transplants easily. Many varieties. Susceptible to leaf spot and powdery mildew problems.

Perennials Have Specific Uses

Perennials According To Height

Low (Less Than 1')

Aluka	Lily-of-the-Valley
Basket of Gold	Mugwort
Candytuft	Phlox
Coral bells	Poppy, Iceland
Daisy, English	Primrose
Forget-me-not	Ranunculus
Goldentuft	Sedum
Iris	Virginia bluebell

Medium (1' To 3')

Aster	Globeflower
Astilbe	Iris
Baby's breath	Leopard's-bane
Balloon flower	Loosestrife
Beard tongue	Lupine
Bellflower	Maltese Cross
Bleeding Heart	Monkshood
Carnation	Mountain Bluet
Columbine	Phlox
Coral bells	Plantain-lily
Coreopsis	Poker Plant
Daylily	Poppy, Oriental
Daisy	Sage
Delphinium	Sneezewort
False dragonhead	Sunflower
Flax	Yarrow
Gaillardia	

Tall (Over 3')

Beebalm	Globe-thistle
Centaurea	Iris
Chrysanthemum	Lupine
Daylily	Monkshood
Delphinium	Peony
Foxglove	Poppy
Gayfeather	Valerian

Easy To Grow

Anemone	Jacob's Ladder
Aster	Mist-Flower
Basket of Gold	Daisy
Beebalm	Phlox
Candytuft	Primrose
Chrysanthemum	Poppy
Daylily	Rudbeckia
Dianthus	Sedum
Gaillardia	Sunflower
Iris	Yarrow

For Succession of Bloom

APRIL

Bleeding Heart	Phlox, creeping
Columbine	Primrose
	Virginia Bluebell

MAY

Bleeding Heart	Globeflower
Columbine	Iris
Coral bells	Leopard's-bane
Daylily	Peony

JUNE

Balloon flower	Foxglove
Beard tongue	Globeflower
Beebalm	Iris
Bellflower	Lily
Blanket Flower	Maltese Cross
Canterbury bells	Meadowsweet
Coreopsis	Mountain Bluet
Daisy	Spiraea
Daylily	Yarrow
Delphinium	

JULY

Baby's breath	Plantain-lily,
Butterfly Weed	blue
Centaurea	Poker Plant
Daylily	Sneezewort
Gayfeather	Statice
Lily	Sunflower,
Phlox, garden	hellopsis

AUGUST

Aster	Joe-Pye Weed
Beard Tongue	Lily
Blanket Flower	Monkshood
Cardinal Flower	Mugwort, white
Clematis	Plantain-lily,
False	white
Dragonhead	Rudbeckia
Gayfeather	Sedum
	Sunflower

SEPTEMBER

Anemone	Delphinium
Aster	Mist-Flower
Chrysanthemum	Sage
Coreopsis	Sunflower,
Gaillardia	helianthus

OCTOBER

Aster	Monkshood
Chrysanthemum	



For Poor Soil

Baby's breath	Phlox, creeping
Candytuft	Mugwort
Gayfeather	Sage
Hen and Chickens	Sedum

For Dry, Sandy Soil

Ajuga	Poppy, Iceland
Aster	Rudbeckia
New England	Sneezewort
Butterfly weed	Statice
Coreopsis	Sunflower
Globe-thistle	Helianthus
Maltese Cross	Yucca

For Moist Area

Astilbe	Joe-Pye Weed
Beebalm	Leopard's-bane
Bugbane	Loosestrife
Cardinal	Mist-flower
flower	Primrose
Forget-me-not	Sage
Globe-flower	Sneezewort
Iris	

Virginia bluebell

For Dry Arrangements

Baby's breath	Globe-thistle
	Statice

For Fragrance

Astilbe	Lily-of-the-Valley
Beebalm	Lupine
Carnation	Mugwort
Daylily	Phlox
Heliotrope	Plantain-lily
Iris	Primrose
Lily	

For Rock Garden

Ajuga	Delphinium
Baby's breath	Globe-thistle
Basket of Gold	Hen and Chickens
Beebalm	Heliotrope
Bellflower	Lupine
Butterfly weed	Maltese Cross
Centaurea	Poker plant
Columbine	Poppy, Iceland
Coral bells	Primrose
Coreopsis	Ranunculus
Daisy	Sedum
Daylily	Yarrow

For Ground Cover

Ajuga	Plantain-lily
Basket of Gold	Ranunculus
Lily-of-the-Valley	Sedum
Phlox, creeping	

For Edging

Ajuga	Forget-Me-Not
Aster	Jacob's Ladder
Basket of God	Mugwort
Candytuft	Phlox, creeping
Coral bells	Poppy, Iceland
Daisy, English	Primrose
False dragonhead	Sedum
Flax	

For Background

Aster	Heliotrope
New England	Sneezewort
Bugbane	Sunflower
Delphinium	Helianthus

For Filling Spaces

Ajuga	Lily
Aster	Mist-flower
Beebalm	Poppy, Oriental
Centaurea	Phlox, creeping
Daylily	Sage
Globe-thistle	Sunflower
Heliotrope	Helianthus

Tolerant of Shade

Ajuga	Forget-Me-Not
Astilbe	Foxglove
Anemone	Gayfeather
Balloon flower	Globe-flower
Beebalm	Iris
Bellflower	Jacob's Ladder
Bleeding Heart	Leopard's bane
Brunnera	Lily
Bugbane	Lily-of-the-Valley
Candytuft	Loosestrife
Cardinal flower	Meadowsweet
Columbine	Mist-flower
Coral Bells	Monkshood
Daylily	Phlox
Delphinium	Plantain-lily
False Dragonhead	Primrose
Virginia	Bluebell



Perennials Save Time And Money

Perennials are the mainstay of any flower garden. They are plants most of which, if given proper care, live indefinitely. They are actually wild flowers that originated in many parts of the world and have been cultivated and hybridized for their beauty.

Because of their permanance, perennials save time and money. They multiply and divide themselves and can be propagated by cuttings.

Perennials add charm and color to any garden. They can be combined with annuals, bulbs and even shrubs. There are literally hundreds of varieties, many new, in a wide selection of shapes, sizes and forms for use in borders, as bedding plants, in rock gardens, for cutting or drying purposes and space fillers.

Perennials should be selected carefully according to ultimate height and form, blending of color and desired blooming period. They should be allowed ample space in which to grow.

Most prefer sun and well-drained soil. Some thrive in shade or under adverse conditions. With careful planning and selection, perennials can give a garden continuous bloom from March or April until well after frost.

Perennials

AJUGA or BUGLE WEED, (*Ajuga reptans*). Good ground cover for shade, but will also grow in full sun, good or poor soil. Creeping. Shiny leaves, spreading habit of growth. Violet-blue flowers. Late spring, early summer. Six to 10 inches.

ANEMONE, Japanese windflower (*Anemone japonica*). Popular fall flower. One species in the large Crowfoot family, has branching stems, basal leaves. Flowers about 3 inches across, five or six sepals on each. White and pink. Up to 36 inches tall. Blooms in September and October. Requires neutral soil. Shelter from strong winds. Good drainage. Full sun or partial shade.

AQUILEGIA, (see Columbine).

ASTER, over 600 species in genus of the Composite family, many of which are native in North America. *Aster novae-angliae* (Hardy Aster or Michaelmas daisy), white, pink, blue, purple, 1 to 6 feet tall, blooms in August and September. Sun. Dwarfs for edging, tall varieties for background. Asters give lavish bloom in the fall. Clumps should be dug up, divided and replanted every three years or so. A frikartii grows 2 to 3 feet and has lavender-blue flowers.

ASTILBE, spirea (*Astilbe*). Feathery blooms on fernlike foliage in shades of white, pink, rose, red and purple. Two to 6 feet. Blooms June to July. Requires lots of moisture, rich soil and partial shade.



Feverfew



Lily-of-the-valley



Bugbane



Astilbe

Balloon flower



Hen and Chickens



Poker Plant



Coreopsis

FR.

BABY'S BREATH, (*Gypsophila*). Misty cloud of tiny blooms on wiry stem network. Foliage makes a neat clump. Needs sun. White or pink blooms. One and a half to 3 feet tall. Blooms June and July. Takes limy soil.

BALLOON FLOWER, (*Platycodon grandiflorum*). Showy perennial from Eastern Asia, sometimes but incorrectly called Chinese bellflower, with broad, bell-shaped flowers 2 to 3 inches wide. Closely related to the Bellflower. Weak-stemmed, brittle, and requires staking. Blue. Blooms July and August. Set new plants in sandy, well-drained soil. Full sun. Plants have brittle roots.

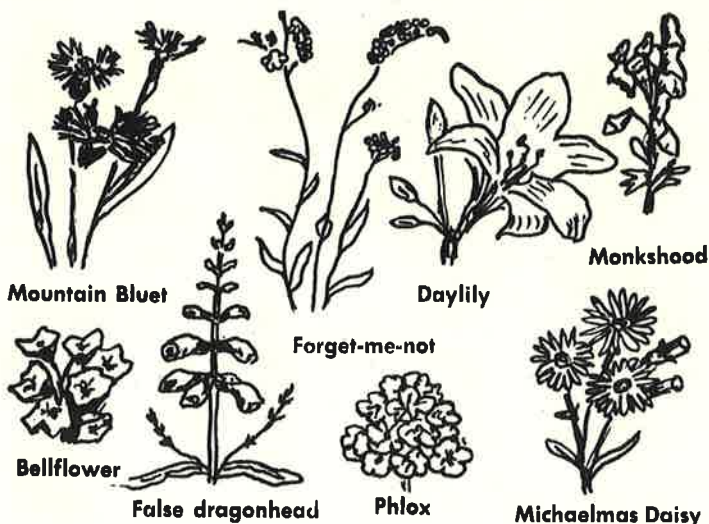
BASKET OF GOLD, golden-tuft (*Alyssum saxatile*). Yellow or gold flowers on gray or gray-green leaves up to 5 inches long. Six inches. May, June. Sun. Good drainage. Good for edging, top of walls. May be short-lived.

BEARD TONGUE, (*Penstemon barbatus*). Stout perennial from Utah to Mexico, grown for its showy red to scarlet flowers in West. Bell-like flowers on spikes. Shades of pinks and blues, also white. Long blooming period, June to August. Sun, will tolerate dryness. Winter hardy.

BEEBALM, Bergamot (*Monarda didyma*). Easy to grow, fragrant-leaved, long-blooming, old-fashioned perennial. Member of the Mint family. Tends to spread. Attracts hummingbirds. Height, 2 to 5 feet, depending on light, moisture and space provided for them. White, pink, red.

BELLFLOWER, peachleaf (*Campanula persicifolia*). Sometimes called Peachbells. Garden favorite with finely-toothed narrow leaves, 6 to 8 inches long and showy blue flowers in terminal clusters. Blooms May to July. Height, 2 to 3 feet. Likes sandy or gritty soil, sun or half-shade.

BLACK-EYED SUSAN, (*Rudbeckia hirta*), (see list of biennials).



BLANKET FLOWER, (*Gallardia aristata*). Rough, hairy plant with lance-shaped leaves, showy flowers, 3 to 4 inches wide with notched or fringed rays. Yellow or orange-red with center always a different color from the tips of the rays. Eighteen to 30 inches tall. Blooms June and August. Full sun, any soil.

BLEEDING HEART, (*Dicentra spectabilis*). Graceful plant with arching sprays of rosy heart-shaped flowers, fern-like foliage. Blooms April to June. Sun or shade. Two to 3 feet tall. Moist, well-drained soil. Attractive with tulips and narcissus and in rock gardens. *D. eximia*, fringed bleeding heart, 18 inches tall. Rose color, edging. Flowers all summer.

BRUNNERA, Siberian bugloss (*Brunnera macrophylla*). Slender, somewhat hairy plant, branching from crown with small blue flowers. Twelve to 18 inches. Sun or shade. May to June.

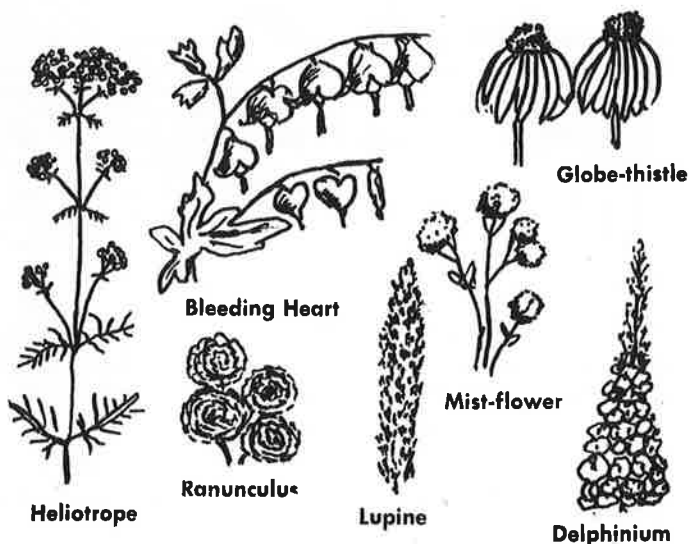
BUGBANE, (*Cimicifuga racemosa*). Member of Crowfoot family (Ranunculaceae). Also called Black Snakeroot. Heaviest foliage at base of the plant. Three to 6 feet. Flowers in dense, more or less drooping racemes; petals may be lacking July, August.

BUTTERFLYWEED, (*Asclepias tuberosa*). Blooms June to August, orange flowers, 2 feet. Sun. Likes dry, sunny places.

CANDYTUFT, (*Iberis sempervirens*). White, sometimes tinged with pink, blossoms in rounded clumps, 1 foot high. Foliage is evergreen. Likes sun and good drainage. Blooms May and June. Member of the Mustard family. Easy to grow from seed. General pest free but attacked by red spider. Compact plant.

CANTERBURY BELLS, (*Campanula medium*), (see list of biennials).

CARDINAL FLOWER, (*Lebelia cardinalis*). Blooms in late summer or early fall. Scarlet flowers. May survive longest in unkempt part of the garden. Grows naturally in wet soil. Two to 3 feet.



CARNATION, (*Dianthus caryophyllus*). Not hardy but has a long blooming period. Fragrant. Two feet. Sprawls if unsupported. Pinks or (Dianthus) likes good drainage, especially in winter. Other species include *D. deltoides* (maiden pink), has pink flowers, and *D. plumarius* (grass pink), makes a spicy mixture.

CHRYSANTHEMUM, popular fall perennial in variety of colors including white, yellow, bronze, red, purple, lavender and pink. One to 3 feet tall August to November. Sun. Plants should be divided every spring or start new ones from cuttings. Pinch back plants to keep them low and to force them to branch.

CLEMATIS, tube (*Clematis heracleasfolia*). Lavender flowers. Three to 4 feet tall, use in borders.

COLUMBINE, (*Aquilegia*). Graceful, spurred flowers on slender stalks. One to 4 feet high. Many species and varieties. Wide range of colors, some bicolors. Mainly early bloomers (some in April), but some bloom in late summer. Sun or light shade. Moist, rich soil. Protect from strong winds. *A. canadensis* (American columbine), red and yellow flowers. Eighteen inches. April. Self-sows.

CORAL BELLS, (*Heuchera sanguinea*). Tiny bell-shaped flowers on tall stalks above tufted decorative leaves. Pink to crimson. Likes humusy and rich soil, sun or light shade. Different species bloom from May to August. Good for edging, in woodland setting, rock gardens. One and one half feet tall. *H. lithophilla*, May, June, pink, red, white to 3 feet, semi-shade.

COREOPSIS, (*Coreopsis*). Hardy yellow, daisy-like flowers, which bloom from May to autumn if cut back after flowering. Some varieties in other colors and with double flowers. Eight inches to 4 feet tall. Full sun, any good soil. Drought resistant. Easy to grow from seed in early spring or fall. *C. grandiflora*, June to August, golden yellow flower heads on long peduncles, 2 feet.

DAISY, English (*Bellis perennis*), (see list of biennials).

DAISY, Michaelmas (*Aster*). Compact, bushy, daisy-like small flowers in many varieties and colors. Usually 2 feet tall, some varieties taller. Requires well-drained soil, sun or partial shade. Generally drought-resistant. Blooms from August to September, depending on variety.

DAISY, painted, or *Pyrethrum* (*Chrysanthemum coccineum*). Easy to grow, both single and double flowers in many varieties, resemble chrysanthemums. June. Good for cut flowers. Colors: white, red, rose, pink. Short bloom. Full sun. Two to 4 feet.

DAISY, Shasta (*Chrysanthemum maximum*). Blooms June, July and August in full or partial sun, well-drained average soil. White. Cut flowers. Two feet. Many varieties.

DAYLILY, (*Heemerocallis*). Easy to grow, June to September depending on variety. Tolerates heat, drought and neglect. Each flower lasts a day and is succeeded by others to give long blooming period. Can be transplanted anytime, even when in bloom. Any soil, likes shade on hot summer afternoon. *H. flava* (lemon daylily), canary color. Blooms in June, good for border or poolside. Semi-shade, narrow, grass-like leaves. Other varieties: *H. aurantiaca* (orange), 3 feet; *H. flava* (Tawny), 3 feet, bronze; *H. Thunbergii* (Japanese), 4 feet, canary color, July.

DELPHINIUM, or larkspur. Tall, stately spikes of single and double flowers. With many shades of pinks and blues and purples as well as white and yellow. Three feet tall. May not do well in warm climates where it is treated as a perennial. Likes any good well-drained soil. Prefers sun but will tolerate light shade. Needs to be kept watered, but subject to crown rot (don't cover crown with soil even in winter with a mulch). Some hybrids bloom in June. Other varieties in September or earlier. Generally good for only one flowering season in Maryland.

FEVERFEW, (*Chrysanthemum parthenium*). Bushy, fragrant plant with many branches. Flowers resemble tiny chrysanthemums. Eight to 12 inches. Yellow-white or pure yellow. Easy to grow. Sun, but will tolerate light shade. Not permanently hardy in cold regions. Any soil. Spring division better than fall division.

FALSE DRAGONHEAD, (*Physotegia virginiana*). Spreading, 1½ to 4 feet tall spike plant for cutting with white, rose or white long-lasting flowers. Member of the Mint family. Any soil. Sun, part shade. July to September. Susceptible to red spider.

FLAX, (*Linum perenne*). Airy, delicate, pretty flower, pale blue. Plant 1½ feet tall. Sun. Blooms May to August. Not good for cutting.

FORGET-ME-NOT, (*Myosotis*), (see list of biennials).

FOXGLOVE, (*Digitalis purpurea*), (see list of biennials).

GAYFEATHER, (*Liatris*). Late summer blooming, white or purple flowers on stiff spikes above grassy foliage. Two to 4 feet. Prefers full sun, well-drained soil. Tolerates drought. Division easy in spring. Can be sown. Popular cut flower. *L. scariosa*, white, 3 feet, attractive spire. *L. pycnostachya*, over 3 feet, purple or white. Best dug and stored in winter. Attractive to bees and butterflies.

GLADIOLUS, (see list of bulbs).

GLOBEFLOWER, (*Trollius europaeus*). A stout, spring-blooming perennial, 12 to 20 inches tall. Prefers moist shady place. Many varieties including Lemon Queen. Many shades of yellow or orange available. Good for edging.

GLOBE-THISTLE, (*Echinops*). Showy, prickly spherical flowers on tall stalks, white-green foliage. Pale blue flowers. Likes sun. To 3 feet. Blooms July and September. Also in white. Good for dry winter bouquet. Foliage could cause short-period skin rash. Requires staking. Light soil.

HELIOTROPE, (see Valerian).

HEN AND CHICKENS, or Houseleek (*Sempervivum*). Perennial, excellent for rock gardens or steps. Dense, basal rosette of many small leaves, with other rosettes or more leaves on erect stem followed with curved cluster of red flowers. Eight to 12 inches. July and August. Full sun, any garden soil.

HOLLYHOCK, (*Althea rosea*), (see list of biennials).

IRIS, mainstay of a perennial bed. Many species and colors, blooming from early spring to fall. Tall bearded varieties in nearly every color, 2 to 4 feet, bloom in May and June, likes sun, withstands heat, drought, need good drainage. Plant or divide in midsummer after bloom. Iris ranges in sizes from dwarf (4 to 10 inches); intermediate (2 feet), to tall (4 feet).

IRIS, Japanese (*Iris kaempferi*). Needs humus, slightly acid soil and moisture. Plant any time after flowering. White, orchid, pink, blue, purple. To 3 feet. June and July. Sun, part shade.

IRIS, Siberian (*Iris sibirica*). May be planted in spring, summer, or fall. Fibrous roots seldom need dividing. Likes moist soil. Sun, part shade. Blue, violet, white. To 3 feet. May and June.

JACOB'S LADDER, (*Polemonium reptans*). Blue-lavender flowers blooming in April and May on handsome fern-like foliage. To 1 foot tall. Likes shade but will do well in sun. Cool, moist, well-drained soil. Good for edging or foreground. Spreads.

JOE-PYE WEED, (*Eupatorium purpureum*). Late summer bloom, rose-colored. Belongs in every wild flower garden, but not suitable for formal beds. Easily divided, can be sown from seed. When heads are about to open cut the flower and hang upside down for winter arrangements. Prefers wet spot.

LARKSPUR, (see Delphinium).

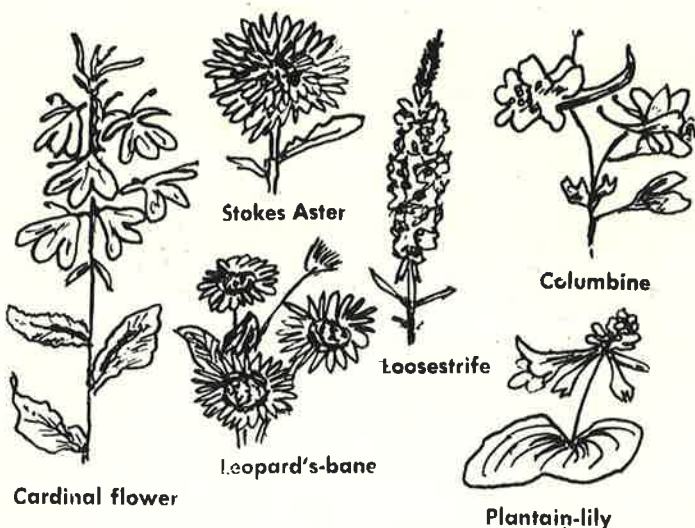
LEOPARD'S-BANE, (*Doronicum caucasicum*). Daisylike flowers for cutting, bed or border. Does best in cool summers. April, May. Sun or partial shade. Yellow. Twelve to 18 inches.

LILY, (*Lilium*). True lily as opposed to daylily. More bulbous than herbaceous. Good for border or specimen plants in perennial bed. All colors except blue. Many very fragrant. Blooms depend on variety. From July to October. Five to 9 feet. Sun or partial shade. Moist, well-drained soil. Varieties include Madonna, Tiger.

LILY-OF-THE-VALLEY, (*Convallaria majalis*). Bell-shaped flowers on arching stems. To 9 inches. Good ground cover, not recommended for borders because it spreads too rapidly and foliage may become too unsightly in full sun. Likes shade. Fragrant. White and pink varieties. Blooms in April and May.

LOBELIA, (see Cardinal flower).

LOOSESTRIFE, (*Lythrum*). Rose-purple spiky flowers that do well in moist areas. Likes sun and partial shade. Three to 4 feet tall. Blooms from June through September. L. salicaria, Purple Loosestrife, found growing wild in meadows. Tall stems, 3 feet or more. Pest and disease-free.



LUPINE, (*Lupinus*). Prefers cool, moist areas. Member of the Pea family. Striking palm-like foliage and spikes of extraordinary colors, yellows, blues, reds, purples and bicolors. Sun, well-drained, rich but moist alkaline soil. Deep tap root makes it hard to divide. Three feet. Aphids are problem. Control with nicotine sulphate or malathion. Good cut-flower.

MALTESE CROSS, (*Lychnis chalcidonica*). Bright red flowers with attractive clefted petals. June-July. Three feet. Snaps easily at base in wind unless staked. Any light soil, full sun. Division easy for double forms.

MEADOWSWEET, (*Filipendula*). A tall genus of the Rose family. Attractive fern-like foliage with white fluffy flowers. Free of pests and diseases, June and July. One to 3 feet. Good for edging.

MIST-FLOWER, (*Eupatorium coelestinum*). Commonly called Hardy Ageratum. Plants can exceed 2 feet in rich soil. Coarse-looking. Useful for cutting and as a late-summer garden plant. Color more purple than blue. Spreads. Same family as Joe-Pye Weed.

MONKSHOOD, (*Aconitum fischeri*). An Asiatic perennial with divided leaves, segments of which are arranged finger-fashion. Very showy flowers in blue, rarely white, highly irregular and unsymmetrical. Corolla resembles a monk's hood. Four to 5 feet tall. Easier to grow than related larkspurs. Blooms September to October. *A. autumnale*. 4 to 5 feet. Flowers blue, white or lilac.

MOUNTAIN BLUET, (*Centaurea montana*). Sometimes known as Perennial Cornflower. Stems usually unbranched. Solitary flower heads. Violet. Good cut flower. June and July. To 4 feet.

MUGWORT, WHITE (*Artemisia lactiflora*). White flowers in very small heads in more or less spiky panicle. July. To 6 feet. Fragrant cut flower. August and September. May require staking. Valued for its green foliage. Propagated in October. Pest and disease free.

NARCISSUS, (see list of bulbs).

PANSY, (see list of biennials).

PEONY, (*Paeonia*). Hardy, sturdy, old-fashioned flower. Long lasting. New varieties have blooms of several weeks. May and June. Two to 3½ feet. Shrub-like with showy, dark leaves. Large flowers in pink, white, purple, yellow, some bicolors. Many fragrant. Single and double flowers. Sun preferred. Light shade tolerated. Rich, clayey soil, well-drained. Needs much water during growing period. Plant roots 2 inches deep, 3 feet apart in September or October. Fertilize annually when buds first appear. May need staking. Leave three to four leaves on each stalk after cutting for manufacturing food. Transplant only in fall.

PHLOX, blue (*Phlox divaricata*). Sometimes called wild Sweet William. One of the most attractive spring wildflowers. Lavender-blue, 12 inches tall. Blooms in May.

PHLOX, creeping (*Phlox subulata*). Low, 6 inches tall, plant forming spreading mats with semi-evergreen, needle-like foliage. White, pink, cerise, blue-lavender. Blooms in April.

PHLOX, garden or summer (*Phlox paniculata*). All colors but yellow and blue. Eighteen to 30 inches. June to September. Flowers about an inch wide in a close, showy pyramidal cluster.

PLANTAIN-LILY, (*Hosta*). White or lavender, small bell-like blossoms on slender stalk from clumps of large, heart-shaped leaves. Likes partial or full shade. Some varieties have variegated foliage. Average soil with humus. Easy to grow and trouble-free. Tendency to spread.

POKER PLANT, (*Kniphofia uvaria*). Also called Red Hot Poker or Torch Lily. African plant. Yellow and cream hybrids, stiff-looking with poker-like flowers. Light soil, keep watered. Phosphate fertilizer encourages abundant, prolonged bloom. Sun. Pest and disease-free. Most are 2 feet tall. Good cut flower.

POPPY, ICELAND, (*Papaver nudicaule*), (see list of biennials).

POPPY, ORIENTAL, (*Papaver orientale*). Flamboyant flowers lasting about two weeks but they go dormant in July or August. Blooms in early summer. Many varieties available in soft colors including white, lavender, pink. Usual poppy is flaming orange with deep saucer. Full sun. To 3 feet.

PRIMROSE, English (*Primula vulgaris*). Small perennial with yellow flowers on wrinkled leaves with crinkled margins. Less than a foot tall. Requires shade, cool, moist, well-drained soil. Useful in edging or in foregrounds. April, May. Does not like summer heat or drought, or slush at their roots in winter. Keep a continuous mulch of leaf-mold. *P. veris*, a Eurasian perennial called Cowslip.

PRIMROSE, EVENING (*Oenothera caespitosa*). Very showy, low, native, perennial with night-fragrant, midsummer bloom. Does well in light sandy soil. White or pink. Four to 8 inches. Blooms in midday. Good for foreground, rock gardens. Drought resistant.

RANUNCULUS, or **CREeping BUTTERCUP**, (*Ranunculus repens*). An invasive, prostrate perennial, useful as a ground cover but hard to confine. Coarse leaves with many yellow flowers. Ten to 12 inches. May-June. Partial shade or sun.

RUDBECKIA, coneflower. Large daisylike flowers on erect stems, good for cutting. Tolerates drought. Some varieties spread. Yellow, gold, rose, white. To 3 feet. July to October. Sun, part shade. *R. hirta* (Black Eyed Susan), see list of biennials.

SAGE, BLUE, (*Salvia pitcheri*). Hairy, native perennial, 4 to 5 feet tall. Blooms in August and September. Easy to grow. Erect bushy plant with foliage covered with short gray hairs. Blue. Set plants in October or April in full sun, any rich garden loam, preferably moist.

SEDUM, (*Sedum sieboldi*). Japanese perennial. Good edging plant, 1 foot tall tolerant of poor soil and long-lived. Gray leaves, unusual foliage shape. Pink flowers in dense terminal clusters. September and October. *S. spectabile*, 2 feet tall. Large rose-colored flowers through late summer. Attracts bees.

SNEEZEWEED, (*Helenium autumnale*). Sometimes called False Sunflower. Strong-growing, native perennial. Leaves lance-shaped. Flowers in terminal clusters. Prevailing yellow. August to October. Also in red, lemon-yellow, terra-cotta red. Full sun, rich soil. Dig, divide, replant every three years.

SNEEZEWORT, (*Achillea ptarmica*). Long-lasting perennial with white flower heads in close clusters. Twelve to 20 inches. June to July. Easy to grow. Sun, any garden soil. Varieties in yellow.

SPIREA, (*Astilbe thunbergi*). Handsome foliage, airy, fragrant flowers. Give moisture. Shade or sun. White, pink red. Eighteen inches to 4 feet. June, July.

STATICE, or sea lavender (*Limonium latifolium*). Lavender perennial, 18 inches. Dainty flower sprays with thin cloud of tiny blooms, good for drying. Requires well-drained, sandy soil. Resists drought. Sun. July and August.

SUNFLOWER, perennial (*Helopsis*). Similar in flower appearance to *Coreopsis* and in cultural needs to *Helianthus*. Divide every second or third spring. Full sun, good garden soil. Native. Three to 5 feet. Blooms August and September.

SWEET WILLIAM, (*Dianthus barbatus*), (see list of biennials).

TULIPS, (see list of bulbs).

VALERIAN, (*Valeriana*). Light pink and lavender, fragrant flowers on 4 to 5 foot stems in midsummer. *V. officinalis* or Garden Heliotrope. Fine for cutting. Blooms in sun and moist soil. Divide after flowering. Dense head clusters.

VIRGINIA BLUEBELL, (*Mertensia virginica*). Also called Virginia Cowslip. Native to moist, swampy woods of Eastern United States. Bluish-green elliptic leaves, with funnel-shaped, drooping flowers in terminal clusters. Blue, but often fading to pinkish. Ten to 20 inches. Blooms May to June. Partial or deep shade in woodsy moist but not acid soil. Short blooming period, then disappears. Good under trees, edge of shrubbery and in borders.

YARROW, fernleaf (*Achillea filipendulina*). Ferny foliage. Yellow, white flowers. To 3 feet. Blooms June to September. Needs sun. Tolerates drought. Easy to grow, hardy. Tends to spread.

YUCCA, (*Yucca filamentosa*). Also called Adam's Needle. Showy perennial with dagger-like leaves with tall stalk and large bell-like white flowers. Six feet. Blooms in June, July. Use as accents in shrubbery or as specimens.

Roles of Bulbs And Biennials

Biennials are plants which spend their first year growing from seed. The second year they flower and die, but often seed themselves thus appearing each year as perennials.

Despite their transient qualities, biennials, such as Canterbury bells, forget-me-nots, foxglove and sweet william, add beauty and charm to a garden. They fill in spaces without disturbing annuals or perennials.

Most biennials are easily transplanted. This should be done on a cloudy day to prevent loss of moisture from the plant.

Many favorite flowers in the garden come from bulbs, corms or tubers, all of which are classified generally as bulbous plants. Onions and lilies are examples of bulbs where the whole plant is contained in a receptacle.

Corms (gladiolus and crocus) are like bulbs but are not scaled or layered and have thickened stems. Tubers (potatoes and dahlias) have thick underground stems with either "eyes" or stalk buds.

Bulbous plants prefer good drainage in sandy, medium loam soil, not tight clay. They prefer long hours of sunshine, although some will tolerate shade. They like plenty of moisture although too much standing water may rot the bulb.

Group plantings of such bulbs as daffodils, hyacinths, tulips and crocus create a more colorful display than two or three scattered plants.

Dutch bulbs can be selected for succession of bloom extending six weeks or so from early March. Wait until the foliage turns brown before cutting leaves or digging the plants for storage. Bulbs need the foliage to manufacture food for next season.

Biennials

BLACK-EYED SUSAN, (*Rudbeckia hirta*) Maryland's State flower, sometimes called Gloriosa daisy. Grows wild, easily cultivated in sun and any soil. Golden ray flowers with dark brown centers. Long-blooming, 18 to 24 inches. Weedy. Related to coneflower (*Rudbeckia speciosa*), a North American perennial. Not to be confused with Black-eyed Susan (*Thunbergia alata*), a tropical African perennial vine, 3 to 8 feet high, with white, purple or orange flowers.

CANTERBURY BELLS, (*Campanula medium*). Graceful plant that blooms the second year from seed with large, clustered bell-shaped flowers in blue, rose and white. June. Some varieties have double flowers (bell within a bell). Two to 3 feet high. Likes shade and well-drained soil. Start seeds in May or June for next season's flowering.

DAISY, ENGLISH, (*Bellis perennis*). Easy to grow biennial. Four to 6 inches for bedding and edging. Basal leaves in rosettes, broadest at the tip. Flower heads on stiff stalks with many rays. All colors except yellow. Prevailing white. Blooms July, August, sometimes to frost. Any soil, pest free. Does not tolerate heat.

FORGET-ME-NOT, (*Myosotis*). Some species, such as *M. scorpiodes*, are blue, sprawling, prostrate spring-blooming perennials (*Semperflorens* blooms all summer); others are low (8 to 9 inches), biennials (sow seed in late July or early August), or annuals such as *M. alpestris*, which is compact, bushy plant to 1 foot with profusion of clear blue flowers. All can be planted in tulip bed.

FOXGLOVE, (*Digitalis purpurea*). Tall, spiky biennial with clusters of showy, white, pink or lavender flowers. To 4 feet. From England where it was discovered in 1785 that its leaves contain a remedy for certain heart diseases. Blooms in June and July. Sow seeds in flats during July. Give ample room for growing. Needs watering. Prefers good garden soil, compost. Does not like heat or drought.

HOLLYHOCK, (*Althea rosea*). Tall plant of ancient heritage. Wide, saucer-like flowers on spikes 5 to 9 feet. Some double varieties. All colors except blue. Blooms from June to late summer. Needs sun, but will tolerate partial shade. Excellent for background. Plant seeds in July for next season's bloom.

PANSY, (*Viola tricolor*). Popular bedding biennial. Over 50 varieties. Dates back to Seventeenth Century from French word *pensee*, meaning thought and remembrance. Low growing to 3 inches. Ideal for rock gardens. Sun, moist, humusy soil. Don't crowd plant. Mulch to keep cool. Cut back straggly stalks to 2 to 3 inches. Seed from July to middle of August. Propagate by division. New variety: *Giant Majestic*.

POPPY, ICELAND, (*Papaver nudicaule*). Hardy perennial, although treated as a biennial, fragrant, June-flowering, 8 to 12 inches tall. Sow seeds in August or under glass in January or February. Plant is native of the Arctic regions and withstands severe winters. Set plants 1 foot apart. Flowers not as showy but are more delicate in coloring than Oriental poppy.

SWEET WILLIAM, (*Dianthus barbatus*). Popular biennial, sometimes grown as an annual. Large, showy, phlox-like blossoms, white, pink, red, sometimes variegated. Twelve to 20 inches tall. Blooms from June to frost. Rock gardens. Full sun, well-drained soil. New variety: *Red Monarch*.

Bulbs, Corms, Tubers

BEGONIA, tuberous. Decorative, flowering plant, tolerant of partial shade, for bedding, pots, hanging baskets, terraces, patios. Wide range of color. Likes mellow, fibrous, slightly acid, rich soil high in organic matter. Protect from heat. Enjoys cool, humid location. Keep watered. Start bulbs in pots indoors in early April. Set outside June 1. Should be dug after early frost and stored in dry peat moss and temperatures 45 to 60 degrees. Grown from seed, by stem cuttings or division of tubers, the larger the better the plant. Over-fertilizing or over-watering can cause buds to drop.

CALADIUM. Tropical, fancy-leaved plant grown for its foliage. Requires semi-shade, good drainage. Tubers may rot in water-logged soil. Likes high temperature, slightly acid, humusy soil.

CANNA. Tropical plant with large leaves and flowers grown for mass planting effect or as specimens. Old roots should be divided into small sections and planted in late May. May also be started indoors in pots. Store with soil on roots in cool cellar.

CROCUS. Small, bulbous plant used for naturalizing. Multiplies rapidly. May be used in borders or among shrubbery. Easy culture. Prefers light, sandy soil, full sun or very light shade. Plant corms of Dutch crocus 4 inches deep. Wait until foliage dies before cutting grass if planted in lawn area. Plant fall blooming varieties including *Colchicum* (autumn crocus) in July. Plant spring blooming varieties from September 15 to November 1.

DAHLIA. Several distinct classes, including formal decorative, informal decorative, cactus, semi-cactus, incurved cactus, pompon and miniature varieties. Native to Mexican mountains. Enjoys hot, dry, high climates, but adaptable to nearly every section of the United States. Prefers full sun. Propagation by division of tubers, cuttings and seed. Thrives best in sandy loam with organic matter. Store tubers for winter. Dahlias are heavy feeders.

GALANTHUS, (Snowdrop). Early spring blooming. Three to 4 inches tall. Should be planted in groups. Tolerant to shade or sun. White flowers.

GLADIOLUS. Adaptable, easy to grow. Any soil. Moderately acid-tolerant. Enjoys superphosphate for better bloom. May be planted any time after danger of frost is over. One to 4 feet tall. Corms flower in eight to ten weeks. Require no special care. Should be cut when one or two blooms open. Prefers sun but will tolerate light shade. Dig corms in fall for winter storage.

HYACINTH. Wide range of color. Tolerant to sunny location. Can be used formally or informally. Use bulbs 2 to 2½ inches in diameter. Plant bulbs between middle of September and middle of October. Tip of the bulb should be about 3 inches below the surface if the soil is heavy; 5 inches in light, sandy soil and may be set 6 to 8 inches apart. Any moderately fertile soil, well-drained.

IRIS, bulbous. Many forms and colors, excellent for cut flowers and bedding plants. As hardy as tulips. Try Spanish, English and Dutch varieties. Sun, light, sandy soil. *Iris reticulata*: blooms with snowdrops and crocus. Good for rock gardens and sheltered spots in garden. Fragrant flowers. Likes moderately fertile, well-drained soil, neutral or slightly alkaline. Plant bulbs in late September.

MUSCARI, grape-hyacinth. Some species are early spring bloomers, others bloom later with narcissus and tulips. Plant multiplies rapidly. Should be divided every three years. Tolerant to sun or shade. Color range: blue, white, heavenly blue, flesh. Plant in groups of 25 or more, among evergreens, in shrub area, perennial borders, rock gardens.

NARCISSUS Often called daffodils. To 1 foot in height. Plants grow in clusters. Trumpet or cup-shaped flower. *Jonquilla* types are hybrids of the daffodil *Narcissus jonquilla*. Double-flowered daffodils available. Plant bulb in early fall twice its depth in well-drained, sandy loam with bone-meal or well-rotted manure mixed with soil at base. Divide clumps after foliage has died. Lift bulbs every six years or so for replanting.

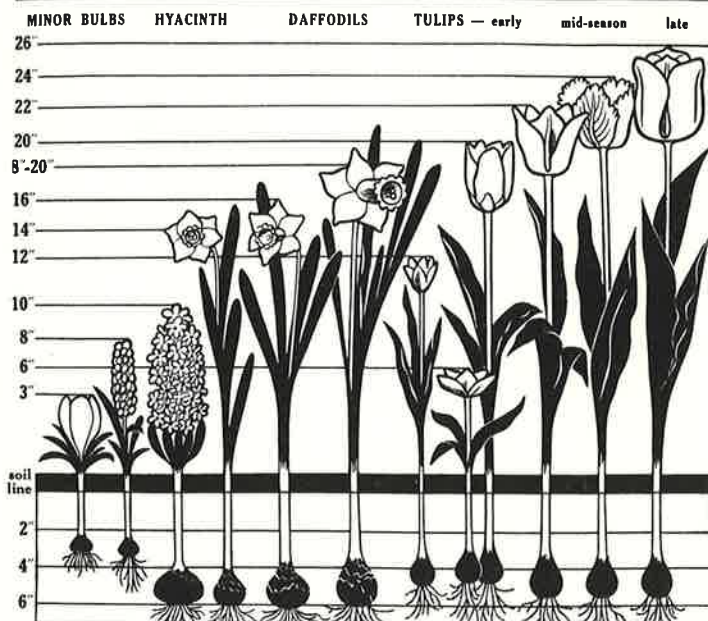
SCILLA, squills. Should be planted in area where they can remain undisturbed for a long period. Propagate rapidly. Plant in fall. Colors range from blue, white, lilac, pink to rosy purple. Prefer partial shade but will tolerate full sun. Small, spring flowering bulb for borders or in foreground of evergreens.

TRITONIA, (Montbretia). Decorative South African summer-flowering bulbous plant. Large, orange-apricot flowers on tall, graceful spikes to 4 feet. Likes sandy soil with rotted manure and humus. Plant corms in fall about 4 inches deep. Requires abundant moisture. Corms may be lifted and stored in same manner as gladiolus.

TULIPS. Wide variety of colors, combinations for succession of bloom. Four inches to 3 feet. Early tulips: *Fosteriana*, *Kaufmanniana*, *Praestans*, single and double. Mid-season tulips: *Mendel*, *Triumph*, *Darwin* hybrid. Late tulips: *Parrot*, *Darwin*, *Cottage*, *Breeder*. Prefer sunny location, protected against wind. Heavy shade leaves tulips weak and floppy. Like light, fertile, well-drained loam.

WINTER ACONITE, (Eranthis). Member of the Buttercup family. Dainty yellow flowers appear in late March or early April. Two to 3 inches tall. Tolerant to shade.

HOLLAND BULB PLANTING GUIDE



Charm And Beauty Of Flower Boxes

Flower boxes add charm and beauty to any town or village community. In Europe they are found everywhere, balconies, porches, lamp posts, filling stations, railroad depots, outside shops, banks, hotel verandas and hospitals. There are few such floral displays in the Baltimore area.

Flower boxes are simple to make, require little maintenance and can be planted for year-round effect. Here is how to make one:

Minimum dimensions for a good window box are 7 inches deep, 2 feet long and 7 inches wide. Smaller boxes are more subject to overheating and drying out.

If exposed to bright sun, insulate the box with plywood. Drill holes in bottom for drainage. Place broken pots, brick or gravel in bottom for drainage. Use one third parts of sand, peat and garden soil. Fertilize every two to four weeks with one teaspoon of complete fertilizer or fish emulsion.

Plants for flower boxes in winter might include young junipers, red cedars, pachysandra, periwinkle, ivy or box. Young evergreens may not survive the winter.

Here are two lists of annuals and perennials, according to sun or shade, which can be planted after danger of frost, usually the middle of May.

Sun

Ageratum
Candytuft
Geranium
Lantana
Lobelia
Marigold
Nasturtium
Pansy
Petunia
Phlox
Portulaca
Sweet Alyssum
Verbena
Vinca

Shade

Begonia, tuberous
Begonia, wax
Browallia
Caladium
Coleus
Croton
Ferns
Fuchsia
Geranium
Heliotrope
Impatiens
Ivy, English
Lobelia
Vinca

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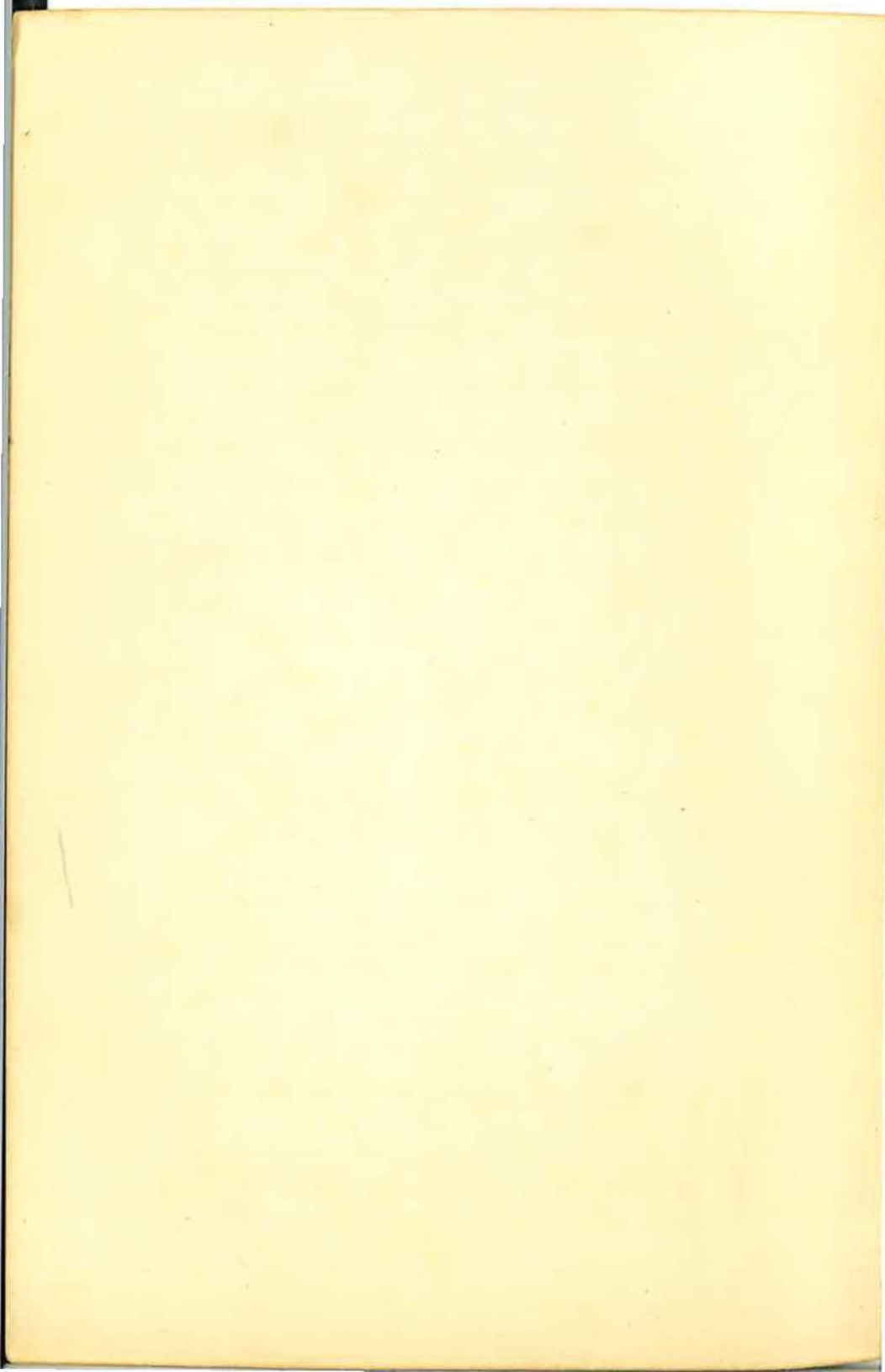
University of Maryland Extension Service bulletins, fact sheets available free from local county agents.

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1. Baltimore County: Agricultural Building, Cockeysville
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